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Presidential Address
ON
THE PRESENT POSITION OF THE MEDICAL PROFESSION.

Delivered at the Seventy-ninth Annual Meeting of the British Medical Association,

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PREVIOUS ANNUAL MEETINGS IN BIRMINGHAM.

LADIES AND GENTLEMEN,—For the fifth time Birmingham has the honour to receive the British Medical Association, and I am expressing the feeling of all classes of our citizens represented here to-night when I bid you thrice welcome to the Midland metropolis. We hope to be able to make your visit agreeable, and that you will be favoured with the fine weather upon which no small part of your enjoyment must depend; but apart from the varied entertainments and hospitalities which we beg you to accept, there is a goodly programme of business in which many of our distinguished visitors are expected to take part; and from the papers that are to be read and the discussions which have been arranged there should be much fresh food for thought—fertile material for the propagation of new and profitable ideas which will remain when the festivities of this meeting will have faded to a vista of pleasant memories. I would commend to your notice the Pathological Museum, on which much labour and learning have been lavished; it has been arranged with the especial object of illustrating a few forms of disease, a plan deemed more instructive than if we had made a miscellaneous collection of specimens ranging over a wider field; this museum is in the Pathological Department of the University in Great Charles-street. The exhibition in Bingley Hall also deserves your attention, as it comprises all that commercial enterprise can contribute to aid the art of healing, and the latest and best products of our manufacturers are there displayed.

Our meeting is this year fortunate in coinciding with the coronation of our Gracious Sovereign and Patron, King George V. We are assured that he possesses to the full measure that interest in the achievements and progress of medical science which was displayed so conspicuously by His late Majesty King Edward, and we may rely upon his sympathy and approval in all our efforts to promote the health of the people committed to his charge. We wish him perfect health to reign untroubled by foreign wars or domestic strife; we pray that he and his Gracious Consort may live to see their children grow up vigorous and honoured princes, happy in the assurance of a loyalty which is no empty sentiment, but is founded on a well-considered appreciation of the value of monarchical institutions.

I have spoken of this as the fifth occasion on which the Association has honoured Birmingham by visiting the city. At the first meeting, in the year 1834, the President, Dr. John Johnstone, devoted his address to "the great question of regulating the education of practitioners and giving the right and fixing the boundaries of practice," which was then "before the Legislature," although 24 years had to pass ere such a project of law became embodied in an Act of Parliament. It is interesting to know he could think that the problem of medical education, "as society is at present constituted, presents no difficulty." He regarded the existing opportunities for academical teaching as "quite sufficient," as medical studies should be confined to anatomy, physiology, pathology, and natural philosophy. But, however much this may come short of our modern ideal, we may heartily agree with him when he says that "character, after all, must be the foundation upon which any system of medical education is built," and for that we must rely chiefly upon the training given during those impressionable years devoted to preliminary education, "which should consist of classical instruction, combined with a wide range of moral and religious teaching," these being the "best groundwork of future judgment and higher intellect."

In 1856 the presidential address was given by Dr. James Johnstone; it was brief, and dealt chiefly with the need for sanitary reforms, which he urged upon the Association, insisting that such a body could effect a great deal of good by advocating them. It is satisfactory to remember that to this Association in no small measure is due the adoption by Parliament of those sanitary measures by which the health of the people has been so greatly benefited.

At the meeting in 1872 Mr. Alfred Baker devoted his address to the same topic, and pleaded that a city such as Birmingham should possess those powers of town planning which, after the lapse of 38 years, have at last been granted. Although we may congratulate ourselves upon many improvements in the sanitary condition of Birmingham, I regret that we cannot at present say with truth, as he did, that "fine and healthy trout are frequently taken by the angler in the Tame at Hamstead," near Birmingham, for the pollution of our rivers, which is a great national misfortune, has increased as a consequence of the presence of a great population on their banks.

MEDICAL EDUCATION.

At the last meeting, in 1890, Sir Willoughby Wade reverted to the subject of medical education. He insisted that the time devoted to the numerous branches of medical education was too short, that cramming took the place of study, and that the true purpose of education was lost. He would not propose to lengthen the curriculum, as that would involve an increase in cost which would press too hardly upon the resources of the average student, but he desired to get rid of some of the subjects at present included, defending himself against the accusation of desiring "to lower the standard of medical education," which, he said, was a phrase more deadly than any argument. He contended that "the question to ask is not what the student has learnt, but how he has learnt it; not how much knowledge he has acquired, but whether he understands what he has been taught; not what he has thought about it, but whether he has learnt to think at all"; and he ended a striking address by the warning—*Propter scientiam sciendi perdere causas.*

The editorial article in the *British Medical Journal* which dealt with this address pointed out that at the commencement of his medical career the student who is fresh from school, untrained in the habit of teaching himself, is obliged to face "some of the toughest and driest subjects" in the whole curriculum, and it compared our course of studies to a cone of which the broad instead of the narrow end is presented to the neophyte. Under the old plan of medical education, as we read in the biographies of Sir James Paget and Sir William Broadbent, a lad on leaving school went as a pupil to a medical practitioner, where he learnt something about the general routine of practice, and grew familiar with the atmosphere of the profession, and thus was more or less prepared for his work when he joined a medical school; on the other hand, his general education too often suffered, and, while there was much that was good in the old system, it has passed away, and no useful purpose can be served by trying to set back the clock.

When 16 years ago the curriculum was extended to five years it was hoped that the student would have more time to devote to the strictly professional part of his education, but the extra year has been swallowed up by the increased demand of the teachers of the preliminary sciences. We are again complaining that the time is too short, and this can hardly be doubted in the face of the fact that the majority of students fail to obtain their qualifications in six years. Some think that preliminary science, or at least elementary chemistry, physics, and biology, should be learnt and passed before the student enters upon his medical studies, and as these subjects are now adequately taught at many of our public schools it is better to leave boys for another year under school discipline and instruction than to launch them at so early an age into a medical school, where the supervision of studies and the control of conduct must necessarily be comparatively weak, where temptations to idleness are many, and where too often the lad is removed from the guidance of master or parent and lives alone in a great city surrounded by sources of pleasure which are irresistible to his inexperienced mind and unformed character. What wonder is it if under these conditions the first year is often wasted? No parent would

willingly expose his son to such risks, but the supposed obligation to enter him at a medical school as soon as he has passed the preliminary examination, in order that the year may count towards the curriculum, outweighs his scruples. For this we must blame the regulations of the General Medical Council and of some of the qualifying bodies. But the Council has recently modified its rules, and as some of the most important bodies now recognise the instruction given in properly equipped secondary schools, it is to be hoped that their example will be generally followed. It should be possible to make the curriculum five years in a medical school after preliminary science has been passed, and so adequate time be obtained for those subjects which can be learnt only in a medical school and in hospital.

Though there is still much in the modern arrangements for medical education which falls short of our desires, there has been a vast improvement in the organisation of medical teaching, in the equipment of medical schools, and in their methods of instruction. Of these not the least important is the foundation of this and other provincial universities, for which large sums of money have been subscribed by the public and to which the Education Department recognises its obligation to render financial assistance in the national work they are doing. Medical education in England has always had its feet firmly planted on the solid foundation of hospital work, but it was deficient in academical opportunities as compared with the schools of Scotland and the Continent, and while these steadily improved their clinical teaching we for a long time hardly realised our deficiencies. Our numerous and admirable hospitals have provided abundant clinical material, and many subordinate appointments of incalculable value for the training of practitioners, but the scientific needs of students are but poorly supplied in them. During the last 10 years this has been to some extent remedied by the better equipment of our medical schools, mainly by the self-sacrifice of the senior teachers, who have surrendered the greater part of their scanty emoluments for this purpose; laboratories have been started in all our schools, and in some hospitals it has been realised that it is not enough to possess good accommodation for the care and comfort of the sick, but that adequate means must also be provided for the study of their diseases by good laboratories with a sufficient paid staff. We in Birmingham who work in the hospitals or in private practice are indebted to our colleagues at the University for much assistance which is exerting an incalculable influence on the character of medical practice, but I would plead with our hospital authorities to take a broader view of their duties and to realise that in the end the interest of the patients will be best served by spending more money on the scientific equipment of these institutions.

THE FUNCTION OF VOLUNTARY HOSPITALS.

We in Birmingham are justly proud of our hospitals, which have been to a large extent rebuilt or reorganised since the Association last visited this city. Several of them are in their way model institutions, and we hope you will visit them, for which arrangements have been made. Supplemented as they are by municipal hospitals for the reception of infectious diseases, it may be fairly claimed that they provide assistance for all the pathological evils to which our flesh is heir; and if they are never equal to the demands made upon them, we must remember that Birmingham is a metropolis which draws patients from a population exceeding by far that of the so-called Greater Birmingham, which after all only includes our own suburbs. Hospitals are burdened with work which is largely of an unnecessary kind; each maintains an overcrowded out-patient department, easy if not absolutely free of access, where relief is given to all who ask for it however trivial their ailments, although some sort of check is attempted to exclude unsuitable cases by the appointment of inquiry officers and similar means. Hospitals boards and medical staffs recognise the evil of our out-patient system and desire to find a remedy, but with all the goodwill in the world this is not so easy as it may seem. The out-patient system has grown up in comparatively recent times and in response to an irresistible public demand. It was certainly not created or encouraged by the honorary staffs, which in Birmingham 40 years ago left the work mainly to the resident officers. As this was not satisfactory, assistant physicians and assistant surgeons were appointed to take charge of the out-patients, and the great expansion of the department dates from that time. That this is not peculiar to Birmingham is shown by the case of the Liverpool Royal Infirmary, which had only a small out-patient hall when it was rebuilt about 20 years ago, but within the last 12 months has found it necessary to open a large additional building for this purpose. At the Edinburgh Royal Infirmary in the "seventies" the only out-patients were those who attended for consultation and who received no medicine, but merely letters to their doctors or prescriptions and advice. Accidents and minor surgical cases were seen, but there was nothing that corresponded to an out-patient department, such as I understand has grown up during recent years.

Dr. Lauriston Shaw holds that hospitals should provide for the poorer classes of the community just that additional assistance which a member of the wealthier classes under the care of a general practitioner is in the habit of obtaining from a consulting physician or a consulting surgeon whenever special treatment or advice becomes necessary. He regrets that hospitals have laid themselves out to provide simple medical and surgical treatment for all comers. I agree with him in deploring it, but I recognise that the out-patient departments have developed in response to a demand which the hospitals, as dependents on public goodwill for their incomes, were not in a position to refuse. Moreover, in the absence of any well-organised system of medical attendance on the poor by dispensaries, or by such methods as may be developed under the scheme of National Insurance, the hospitals cannot repudiate this burden without exposing themselves to a charge of inhumanity. Yet a change that would permit the hospitals to follow the plan described by Dr. Shaw would be welcome, as it would promote their efficiency by setting them free to devote all their resources to the more serious cases.

Mr. J. Courtney Buchanan, in his paper on the Function of the Voluntary Hospitals in relation to the proposed Public Assistance Authority, has advocated the limitation of the work of the voluntary hospitals by excluding not only those cases, such as fits and insanity, which are usually regarded as unsuitable, but also the very poor and the well-to-do. He considers that all patients should pay something towards the cost of their treatment and maintenance in the hospital in proportion to their means; if unable to do this they come into the pauper class and should be treated by the Public Assistance Authority. He would reserve hospitals for acute, costly, or special cases. In order to meet the objection that this would diminish the clinical value of the voluntary hospitals he considers that the Poor-law hospitals should be open under proper regulation to medical students. The out-patient departments of general hospitals should be reserved for consultation cases, the ordinary out-patient class being treated in provident dispensaries or dispensaries provided by the public assistance. At these consultative out-patient departments the number of cases to be seen by each consultant should be limited. He accepts the provident dispensary plan outlined in the report of the Majority of the Poor-law Commission, by which the dispensaries would be staffed by all those medical practitioners residing in the district who are willing to undertake the work, giving the patients the right of selection. He does not think much importance need be attached to the objection of the Minority, that free choice would mean that doctors would seek to gain popularity by being liberal with extras, as this, he says, would be checked by a system of supervision and inspection, with power to remove from the panel the name of a doctor whose conduct is not satisfactory. Another of his suggestions is that no out-patient should be seen a second time without bringing a card signed by a general practitioner; but although this might be useful to rid the hospital of trivial or unsuitable cases, where the case required to be seen a second time, no hospital officer would run the risk of failure to obtain the necessary signature, but would tell the patient to come a second time, whether the signature were obtained or not. A further suggestion is that the hospitals and dispensaries should be supported by a rate levied on the class likely to use them; the obvious objection to this is that this class pays no rates, so that the money raised would come out of the pockets of the owners of small house property or lead to an augmentation of rents which are already too high.

Mr. Charles Booth also thinks voluntary hospitals should limit the work they wish to undertake, instead of, as at

present, taking all that comes, much of it being of a kind that they do not want, and thus finding a hindrance in doing the work they are specially adapted to perform. If their work were so limited on the Poor-law would fall the duty of providing for these cases rejected by charity. He points out that the proposal to put the treatment of all sickness under the health authority presupposes that it must be not only free but compulsory, but if so "it postulates an exactitude of medical diagnosis and a finality of treatment which have not yet been attained, as well as a degree of discipline and of sacrifice of liberty as yet unthought of," nor does he believe that in practice it would be possible to recover payment in proportion to means, as suggested in the Minority Report of the Poor-law Commission. He concludes that there would be a residue of paupers to be dealt with by the Poor-law—that is to say, there would always be chronic destitute sick who would not be kept permanently in any voluntary institution, and would have ultimately to go to a Poor-law hospital, and he thinks that, as the Poor-law would have to undertake the care of these people who would not come properly under the health authority, there is no reason for refusing to allow the Poor-law authority to deal with acute cases of illness in destitute persons.

I am quite in agreement with the view that voluntary hospitals should define their work and give up the attempt to deal with all cases of sickness that enter their doors. During recent years they have declined to deal with infectious cases, and provision has been made for these by the sanitary authority; it remains for the hospital authorities to refuse to treat urgent but trivial cases, and to reserve their institutions for serious cases of a medical or surgical kind, for special diseases, and, above all, for cases referred for diagnosis or treatment by medical practitioners.

MEDICINE AND THE STATE.

It is part of the programme of the International Social Democratic Party that the State should undertake the entire control of health services, and therewith the practice of medicine, so that in the "State of the Future" the fate of the doctors is sealed. Without wishing to exaggerate this fact, it must not be forgotten that there are some practical men having no sympathy with socialistic dreams, who yet desire to see the medical profession made a service of the State, and among them are even members of the medical profession. Their usual argument is that there is a conflict between the interests of the medical profession and the public health which can only be removed by subsidising it and making its business to be to prevent rather than to cure disease. But while a State medical service is admissible and even desirable for administrative and sanitary purposes, a compulsory absorption by the State of all medical practitioners would not be in the interests of the public, of the profession, or of medical science. If medical practitioners are to be in the service of the State they must be given the power to compel submission to treatment, a condition which would lead to the most extraordinary abuses, while the calling of a medical practitioner would be of all the most miserable. In South Switzerland such an experiment came rapidly to grief; in Bellinzona 55 practitioners accepted fixed salaries to attend both rich and poor, the town and its suburbs being divided into districts, the inhabitants of which paid a small tax for medical treatment; of the 55 doctors at the end of 18 months 53 had come to the conclusion that they could not continue the arrangement, as the demands of the public by night and by day could not be satisfied. Moreover, it must be remembered that doctors are only human, and that human nature has its inherent weaknesses. State doctors would be deficient in diligence and ability, and the "Government Stroke" would be seen in their work so soon as the stimulus of free competition was removed.

At the present time we are threatened with dangers created by proposed social legislation whose bearings it is impossible to foresee, but which are sufficiently serious to justify the distrust with which it is regarded by all classes in the profession. Medical attendance on the poor has been provided by: (1) the Poor-law; (2) charitable hospitals and dispensaries; (3) provident dispensaries; and (4) medical clubs. The first has been the subject of severe criticism, but its worst features are due to the fact that it is generally ill-paid contract work, the better plan being, wherever possible, to give it to whole-time officers who are paid an adequate salary. What has been already said about hospitals applies to dispensaries, as both should be used only for consultations in grave or obscure cases, or for those needing special treatment. Provident dispensaries exist in many towns, but are often regarded with suspicion on account of the unwillingness of their managers to impose a wage limit. Clubs are of many kinds, of which the simplest are those established by individual practitioners, who undertake to give all necessary medical attendance in return for a small annual payment. These are common in country districts and are distinctly beneficial, as the doctor, who would otherwise receive nothing, gets a small payment, while the patient retains his self-respect. As the doctor controls the admission of members, he runs no risk of the club being abused by persons whose circumstances do not justify the concession. Clubs which exist in connexion with works and collieries are generally controlled by the management and not by the men, and their relations with the medical profession are usually satisfactory. It is where medical attendance is provided by insurance societies, medical aid societies, or friendly societies, which seek to make a profit out of this part of their work or to use it as a means of attracting subscribers for their other benefits, that the profession has had most cause to quarrel, so that the Battle of the Clubs has become a familiar headline in the medical press. In 1892 the General Medical Council appointed a committee to inquire into the working of this system, and in 1893 a report was issued, together with a considerable amount of evidence, to prove there was good ground for the dissatisfaction of the profession. The conclusions of the report showed that the evils of which complaint had been made, and which were proved to exist, were the excessive number of patients, causing "great exhaustion and disheartenment to the medical officer," and to the patients' impossibility of obtaining adequate treatment; the abuse of these clubs by persons whose means and social position gave them no claim to be treated on reduced terms; and, lastly, the dependent position of the medical officers, which was inconsistent with the conscientious performance of their duties.

When medical practitioners were allowed to employ unqualified assistants contract work could be performed at least profitably if not efficiently; but in 1897 the General Medical Council, with the hearty approval of the medical profession, insisted that all patients must be seen by qualified practitioners, and the club doctor has since that time been compelled to do the work himself or to employ an expensive qualified assistant. This undoubted reform meant a great improvement in the quality of the medical attendance given to the working classes, and ought to have been accompanied by an increase in the rate of payment, but the legitimate demands of the medical profession were set aside, and as no efficient organisation existed, the result has been a long-drawn-out quarrel and widespread discontent on the part of the medical profession with the club system. The rate of payment is so low that to earn a sufficient income more work is undertaken than can be properly accomplished. The overworked doctor sees his patients hurriedly and falls into a routine method of treatment; he loses interest in his work; the bright ideals with which he started in practice fade away, and when he has time to reflect he feels ashamed of himself and angry at the bondage from which he would gladly escape. That this is a true picture of many a club doctor no one who knows the medical profession can doubt, nor should any one be surprised that the prospect of an enormous increase of this system under the control of the friendly societies fills us with dismay. Such work is not only degrading to the doctor but is bad for the patient, and if custom made some of us blind to its evils, the prospect of having under the National Insurance Law to attend a third of the population on these terms has roused a spirit of resistance which will not be satisfied by rejecting the new proposals, but aims at getting rid of the burden which has galled us for so many years. In this effort we ask for the sympathy and support of the public. The services of a medical practitioner are above all others difficult to appraise, but no one can doubt that they cannot be adequately rendered if he is unable to spare the necessary time to examine his cases. What can be the good of spending millions on the provision of sanatoriums for phthisis

if the medical attendance is to be of such a character that early cases will rarely be recognised? The interests of the public are at one with those of the medical profession in the need for putting an end to contract work. The only argument in its favour is its cheapness, but if it is true that the health of the people is the greatest national asset, we cannot tamper with the efficiency of the medical treatment to be provided. To secure this it is essential that the duty of providing medical benefits should not be entrusted to friendly societies or insurance companies, and that the doctor should be paid for his work and not asked to undertake a contract of which no one knows the risk. The former of these conditions has been admitted to be desirable by the Chancellor of the Exchequer himself, and although it is resisted by the friendly societies, it is to be hoped that Parliament will recognise the need for granting it. But we are told that the second is impossible, because as no one can calculate the risk, and as the funds to be provided under the Act are limited, it is necessary to impose the burden, not upon the general taxpayer, but upon the medical profession! When the proposal is stated in plain language it seems hardly possible that Parliament can be asked to sanction anything so manifestly inequitable. We are told that if the doctor would benefit from the patient's fraud there would be no check on malingering, to which the answer is that in this matter you must trust the medical profession, and the way to make doctors faithful guardians of the public interest is to treat them fairly. Any medical man convicted of conniving at malingering can be made liable to be removed from the panel of practitioners employable under the Act, and you may be sure that there will be a sharp look-out kept by the profession to check such practices. The third objection is somewhat similar, as it is feared the doctor would unduly prolong his attendance, and the answer is the same, but Parliament and the public should know that the National Deposit Friendly Society has for years conducted its business on the principle of paying the doctor for work done, and has not had to complain of the result.

THE NATIONAL INSURANCE BILL.

The National Insurance Bill is admittedly an adaptation of the German law of 1885, and a Parliamentary paper has been circulated (Cd. 5679) containing the opinions of various authorities in Germany in support of the proposed legislation. With equal reason we may look to Germany for warnings and danger signals, and I would point out that the effect of placing the administration of medical benefits in Germany in the hands of committees controlled by working men has been to cause a bitter quarrel between the two parties, and has led to the formation in Germany of a medical organisation with a membership of 21,210, known as the Leipzig Union (*Leipziger Verband*). Its object is to meet organisation by organisation, to create a fund for fighting purposes, and to form a league for conducting an agitation in the event of any action on the part of the societies contrary to the interests of the medical profession. It is, in fact, a trades union founded on the same lines and having similar objects to those of the workmen, and ready to use the same means—namely, a strike, to gain its end. Our German colleagues claim that although this has been said to be unworthy of a liberal profession, it is the necessary outcome of the situation created by Parliament, which has sought to benefit the wage-earners at the expense of the medical profession. So far the Leipzig Union has been victorious in all the contests in which it has been engaged, the best part of the medical profession having rallied absolutely under the banner of professional union. Those who have remained outside are only army doctors, university teachers of theoretical subjects, doctors without practice, and a few cautious medical bureaucrats; and no one knows better than the leaders of the workmen's societies and the directors of the insurance companies that they must rely only upon the most incapable medical aid should they quarrel with the medical profession.

What has been done in Germany can be done here. If Parliament forces a fight upon us we are not unorganised. The British Medical Association, which was founded with quite other objects, has been compelled by the militant tactics of the Friendly Societies and clubs to create a department for the defence of medical interests, and this is conducted with great ability by the medical secretary, Mr. J. Smith Whitaker. During the past year, and owing to the threatened danger, over 3000 new members have joined our ranks, and approximately we number to-day 24,400 members. Without the medical profession the Insurance Act must fail, and I think these numbers justify me in saying that it cannot succeed without the British Medical Association. As all parties in the House of Commons have accepted the principle of the National Insurance Bill, and even the medical profession has accorded a welcome to a measure which proposes to make better provision for the care and maintenance of the sick poor, criticism of it is difficult, yet the experience of Germany and that of those who are well acquainted with the conditions and opinions of our own poor, and of the working of our national institutions which have for so many years striven to help them, should make us hesitate to adopt without careful consideration in all its details a scheme which proposes to revolutionise the relations of the wage-earning classes to the State, to their employers, to the medical profession, and to those charitable institutions to which they must continue to look for help in many serious illnesses.

It is a mistake to suppose that there is any legitimate comparison between the condition of Germany in 1885 and that of this country in 1911. The voluntary principle has been sufficient to provide us with a system of hospitals and dispensaries which is on the whole superior to that of Germany, except in the one department of sanatoriums for tuberculosis, and even here our shortcomings have been exaggerated. Mr. W. H. Dawson claims that Germany has provided 7294 beds for the treatment of tuberculosis, while in England, according to the estimate of the secretary of the National Association for the Prevention of Consumption, we have about 2500 beds; but our population is only half that of Germany, and a comparison of the death-rate from consumption in the two countries warrants the belief that the prevalence of tuberculosis here is only two-thirds of that in Germany. If allowance be made for these facts, 2500 beds constitute nearly as adequate a provision as that existing in Germany. Under these circumstances it is extravagant to provide such a large sum of money for building and maintaining sanatoriums, and unwise to neglect to set aside any funds for the treatment of the numerous special cases that must arise, and of which I fear it is proposed to cast the responsibility upon the voluntary hospitals, whose sources of income have already been sapped by the heavy estate duties, and are further threatened by the taxation under this Bill, which will fall upon the employers and workpeople who at present contribute a share of the incomes of the hospitals in this district which appears to range from 30 to 90 per cent.

How long the friendly societies, which afford a splendid example of national thrift, will survive side by side with the compulsory principle remains to be seen, but it is at least to be hoped we shall avoid the danger of allowing them to become the controlling power in the scheme. In Germany the workpeople have managed to gain this position, and the principal amendments to the German law which have been passed by the Reichstag during the summer have been directed to diminishing the influence of the workpeople on the various committees and preventing the bureaus from being used for political purposes. It is believed that Socialist officials and doctors have been appointed regardless of their qualifications for office, that the distribution of printing and advertisements has been confined to Socialist newspapers, that money has been improperly spent for the purpose of Socialist literature, while paid officials have been permitted to act as Socialist agitators. This is the result of a measure which was advocated by Bismarck as the best means of checking the growth of Socialism! Not only has it failed to do this, but it is also said to have become a corrupting influence which is sapping the honesty and independence of the German people. No one has ventured to impugn the competence and impartiality of Dr. Ferdinand Friedenburg, a lawyer and ex-President of the Imperial Insurance Bureau at Breslau, who, in an article published last April, has made this charge against the Insurance Law. He complains of its extravagant management, of the endless litigation to which it has led, of undue pressure being brought to bear on magistrates and medical practitioners to induce them to give decisions favourable to the workpeople, of excessive compensation, of laxity in interpreting the law, and of the enormous increase in the number of claims which from 100,159 in 1886 rose to 662,231 in 1908. In his opinion it

has led to general demoralisation among the classes concerned; claimants magnify slight injuries, neglect prescribed treatment, keep wounds open by artificial means, or remove or spoil apparatus, and then represent that it has done harm. He points out that the position of the doctors is peculiarly difficult, as they stand between the insured and the insurance board, and every claim must depend upon medical support. The consequence is that a doctor known to be lenient is sure of a large practice, while one who tries to do his duty is boycotted and driven out of practice, and he gives instances of cases within his own knowledge in support of these charges. But we need not look to Germany alone to find ground for mistrusting the effect of this legislation. Miss Loane, whose work amongst the poor gives her the right to express an opinion, is convinced that compulsory insurance will not be regarded by them as a benefit. She says that they fail to understand the principle of insurance, and often account themselves wronged if no illness occur to enable them to make a claim on their club, while the sight of a neighbour benefiting by insurance increases their unwillingness to join or to continue to subscribe, because they see that the sick man is drawing their money, and if the club were the State she thinks the practical results would be no better. Even voluntary insurance, if the result of over-persuasion, gives rise to most unbounded claims, and commonly results in bitter discontent. She tells of a young woman who was induced to pay 2*s.* a year for three years, for which she enjoyed ten weeks at a seaside convalescent home, besides various small privileges. Her mother was deeply dissatisfied with this return for her money. Again and again she said: "T'ain't as if she 'asn't paid for it; three years on end she has been paying in regular. I don't call that no charity!" If these are the results for which we are destroying the voluntary principle and establishing compulsory thrift in its place, we may well doubt whether future generations will be so grateful to our present legislators as they would doubtless wish.

I regret that I have been obliged to refer to political matters in this address, but this is not a party question, and the medical profession is not divided about it. Silence on my part would have been misunderstood, and if I have succeeded in defining our position and in making clear what we desire, and why we do so, I shall have attained the object I had in view.

Address in Medicine
ON
MISTAKES.

Delivered at the Seventy-ninth Annual Meeting of the British Medical Association

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MR. PRESIDENT, LADIES, AND GENTLEMEN,—Allow me, in the first place, to express my thanks—my very sincere thanks—to the Council of the Association for the honour it has conferred upon me in asking me to give this address. The feeling of pleasure and satisfaction which I experienced on receiving the request of the Council was, I need hardly say, qualified by a feeling of apprehension when I realised how difficult it would be to follow satisfactorily in the footsteps of the long roll of distinguished men who have preceded me in this honourable position, and how difficult it is to fix upon a suitable subject for one's remarks. While thinking over likely subjects—some scientific, some of general interest—I asked Dr. William Collier, when we were examining together at the Army Medical College in January last, what he would suggest. Dr. Collier thought that as the great majority of the audience would be general practitioners, a practical subject would be much more acceptable than an elaborate discussion on a scientific or technical subject; he thought one of the most interesting and instructive subjects, in the hands of a man of wide clinical experience, would be Mistakes. Well, that being so, it seemed to me that mistakes was a subject with which I was well qualified to deal, for I have had a large and varied clinical experience and—I have made many mistakes.

It is hardly necessary to say that it is not a question of who makes and who does not make mistakes; it is only a question of who makes the most mistakes and the biggest mistakes. The most experienced of us, who make a point of checking our clinical observations and diagnoses by post-mortem examinations whenever it is possible to do so, will I am sure, admit that we make many mistakes. Nor can this be wondered at when one remembers the extent of modern medicine and the impossibility of any one man mastering it as a whole and making himself practically familiar with each of its individual parts in detail; the extreme complexity of many of the problems with which the physician has to deal; the elaborate and highly technical nature of some of the chemical, instrumental, and other methods of clinical examination and research which we employ; the insufficient data on which we have sometimes to found our opinions; the great difficulty we often have in eliciting and observing the facts; the circumstance that in some cases we have to rely upon the statements and observations of the patient or his friends for some of the data on which our opinions have to be based, and that those statements and observations are often inaccurate and sometimes positively misleading; and the natural imperfections which are inherent in every human mind.

But there are mistakes of various kinds. There are the bad mistakes which show incapacity to make the most ordinary observations, gross ignorance, or inexcusable carelessness; and there are the slight mistakes—they perhaps should hardly be called mistakes—such as erroneous conclusions with regard to the significance of certain facts or groups of facts. There are mistakes of omission and mistakes of commission, mistakes due to incomplete, inaccurate, or erroneous observation, mistakes due to hasty or illogical conclusions. There are mistakes which as regards their results are unimportant; and mistakes which, either to the practitioner who makes them, to the patient whose case is wrongly diagnosed, or to the public at large, are of great importance, since they may entail very disastrous consequences.

Everyone will allow that one learns from one's mistakes, and that when one does make a mistake, one should always try to analyse it and find out the cause of that mistake.

IMPERFECT KNOWLEDGE.

Mistakes due to imperfect knowledge, to want of clinical experience, to erroneous observation, to inability to observe correctly, are most common in the early years of one's practice. Let me mention one or two mistakes of this kind, for the details of concrete cases, which have actually occurred in one's own practice, make far more impression on the mind of one's audience than mere statements of fact as regards differential diagnosis.

Hæmoptysis due to mitral stenosis mistaken for phthisis.—Soon after I entered practice a young man came to me complaining of cough and spitting of blood. He was a thin, weedy individual of poor physique; several of the members of his family, I knew, had died from phthisis; bronchitic râles and moist sounds were present over the apices of the lungs. Without examining the heart I diagnosed phthisis. Some little time afterwards he consulted the late Dr. Murchison, who found that he had mitral stenosis and that he was not suffering from phthisis. Since then I have never failed to examine the heart in all cases of hæmoptysis.

Hæmorrhagic small-pox mistaken for typhus fever.—About the same time I was called to see a well-to-do old gentleman living in eminently satisfactory surroundings. His illness was of two days' duration. It had commenced with headache, backache, and vomiting. He was feverish; the lower part of his abdomen and adjacent parts of the inner side of the thighs were covered with a profuse, confluent, plum-coloured, purpuric rash; his conjunctivæ were suffused with blood; he was vomiting blood and passing blood by the bowel and kidney. He rapidly became comatose, and died before the consultation which had been arranged with the late Dr. Charlton of Newcastle came off. I certified his death as due to typhus. The diagnosis was much criticised. There was no typhus, and for years there had been no typhus, in the place—North Shields. Subsequent inquiry and consideration showed that

the case was one of malignant small-pox. The old gentleman—a shipowner—was in the habit of visiting his retired ship captains. In the house of one of them, who lived in Newcastle, and whom he had visited about a fortnight before the commencement of his illness, there was a case of small-pox. There was no small-pox in North Shields at the time. Soon afterwards we had a severe epidemic, during which I saw more than one case in which the remarkable initial purpuric rash over the bathing-drawer area and adjacent part of the thighs, which was such a striking feature in the old gentleman's case, was present.

Pain in the back due to the pressure of an aortic aneurysm.—A full-blooded, robust-looking man came to me complaining of a fixed pain between the shoulders. I could not detect anything abnormal; and, relying too much on my powers of physical examination (as the young practitioner who has just qualified is apt to do) I ignored the symptom, the patient's suffering, and told him that there was nothing of consequence the matter with him. Shortly afterwards he died suddenly. Post-mortem examination showed an aneurysm of the descending thoracic aorta, which had ruptured into the pleural cavity. Since then I have never disregarded a fixed pain in the back in an aneurysmal-like subject, and I have always tried to give due weight to the patient's symptoms and complaints.

But while, as this case proves, mistakes may result from ignoring or making too light of the symptoms and complaints of patients, the remarkable absence of symptoms in some cases of advanced organic disease shows that the *only way to avoid mistakes of omission is to make a complete physical examination in every case which comes before us.* The following case illustrates this point.

Enormous aneurysm of the thoracic aorta: no symptoms.—A man, aged 58, who had worked for two years at the Forth Bridge during its construction, first as a fitter, afterwards in looking after the planing machine, neither of which is heavy or severe work, received a blow on the right eye on March 9th, 1885. On admission to the Edinburgh Royal Infirmary the lens was found in the anterior chamber. It was removed by the late Dr. Argyll Robertson the following day. On the evening of March 14th he had a severe attack of dyspnœa. Physical examination showed extensive dulness and heaving pulsation over the upper part of the front of the chest. He died suddenly the following day in consequence of the rupture of an aneurysm into the left pleura. Now, up to the date of the accident this man had never been off work for a single day, had never consulted the doctor gratuitously provided for the employees at the Forth Bridge, and had never made any complaint to his fellow workmen. The case is remarkable, for, in addition to this enormous fusiform aneurysm—I think it is the largest intrathoracic aneurysm I have ever seen—the trachea was directly pressed upon and flattened by a small secondary sac.

HURRY AND HASTY CONCLUSIONS.

In the case of experienced practitioners, *hurry, and the incomplete examination of patients due to hurry, and hasty conclusions* are probably by far the most common causes of errors in diagnosis. Physiognomic diagnoses, I need not say, are apt to be erroneous. Some of you have, no doubt, heard the story of the professor who prided himself on his powers of physiognomic diagnosis, and the patient with gouty, *but artificial*, teeth.

INACCURATE INFORMATION.

Mistakes are not infrequently due to the fact that *the information which we get from third parties is insufficient, inaccurate, or misleading.*

Suspected Addison's disease.—A pitman came to me complaining of loss of strength and weight, which he said had followed an attack of influenza. I could detect no physical signs of disease to account for the extreme asthenia and marked emaciation. His hands and face were deeply pigmented, but for some weeks after the influenza he had been sitting out in the sun. The skin of his back was, I thought, a little dark. Thinking that the case was probably one of Addison's disease, I was anxious to get further information on the point, and told my house physician to bring in the patient's wife. On asking her whether she thought the patient's skin was darker than it had been before the attack of influenza she answered, "I could not say." I then told her to look at the patient's back and tell me whether she thought it was darker. She said, "I could not say; I never saw his back before." I then said, "That is a remarkable statement. Do you mean to tell me that you never saw your husband's bare back before?" She then said, with some show of indignation, "He is not my man at all!" It appeared that the house physician had brought in the wrong woman. Now if the information available had stopped here a mistake of omission might easily have occurred; but fortunately the real wife was available; she thought that the skin was darker. The patient died a few days later, and the diagnosis of Addison's disease was confirmed.

Functional spasm.—In January, 1910, I published in my *Clinical Studies* an interesting case of spasmodic muscular contractions in which the symptoms disappeared rapidly and completely under isolation and psycho-therapeutics. The doctor who sent the patient to me had diagnosed the case as Thomsen's disease; he wrote me saying that the patient had been in the Cardiff Infirmary, where the same view had been taken of the case, and where the patient had not improved. In commenting on the case I quoted these statements, not with the object of reflecting in any way on the diagnosis, but for the purpose of showing how closely in some of its features the case resembled Thomsen's disease. Some 15 months after the case was published I received a letter from the physician under whose care the patient had been saying that he *had not* diagnosed the case as Thomsen's disease, and that the patient *had* improved in the Cardiff Infirmary, and asking me to contradict my statements. I am glad to take this opportunity of putting the matter right, and correcting the, but not my, mistake.

The importance of verifying one's facts before giving an opinion was forcibly brought home to me by the following case. I once asked an old lady, for whom I had prescribed a few days previously, how she was feeling. She replied, "Very much better, thank you, I am almost quite well again." I then said, "I was sure *that* medicine would do you good." The patient smiled and said dryly, "But, doctor, I did not take it." I need hardly say I felt "very small." I learnt by that mistake.

UNDESCRIBED DISEASES.

Before a disease is described as a distinct clinical and pathological entity, typical and characteristic cases, which a few years later are easily diagnosed, are mistaken for other conditions; after the disease has been recognised and described one wonders how one could possibly have made such mistakes.

Myxœdema is a striking illustration in point. The appearance of typical cases of myxœdema is so characteristic that one can with certainty recognise them at a glance. But until the late Sir William Gull published his description of the clinical features of the disease in 1874, cases of myxœdema were generally diagnosed as cases of Bright's disease or obesity. That some observers were well aware that the condition was a peculiar one I know from my own experience; for when I entered practice in the year 1869 my father showed me a splendid example of the disease, directed my attention to many of the characteristic clinical features, and told me that he believed the condition was a new disease—a disease which had never been described.

Myasthenia gravis is another excellent illustration. I remember when in general practice being much puzzled by the case of a young woman supposed to be suffering from hysteria; she died suddenly with bulbar symptoms. Post-mortem examination revealed nothing to account for the death. I now know that it was a case of myasthenia gravis.

ERRONEOUS DEDUCTIONS.

Mistakes due to *erroneous deductions and illogical conclusions* are very common. Nor is this to be wondered at when it is remembered that there is probably no faculty of the human mind which differs more in different individuals than the faculty of judgment—the power of seeing things in their correct proportion, the ability to weigh correctly all the facts of a case and to draw the correct and logical conclusion from them. Even those men in whom the judicial faculties are most highly cultivated often fail to draw the same conclusions from the same facts. How frequently we see the judges differing on points of law, and the opinions and decisions of the lower courts reversed in the Court of Appeal and in the House of Lords! Now, if this occurs in law, how much more likely is it to occur in medicine; for, in comparison with medicine,

law may be almost regarded as a fixed science. Further, in medicine the facts on which our conclusions and opinions have to be based are, in many cases, very difficult to observe, and, in some cases, chiefly or entirely consist of the subjective sensations described by patients.

Mistakes in diagnosis often occur because *undue importance is given to some symptom or physical sign* which is present. Take, for example, *double optic neuritis*. In many cases in which the diagnosis lies between an intracranial tumour and some of the other conditions with which it is apt to be confounded, the presence of double optic neuritis decides the point in favour of tumour, and the absence of double optic neuritis is a cause of doubt. On the other hand, the presence of double optic neuritis may suggest a diagnosis of tumour when no tumour is present. The differential diagnosis of tumour of the frontal lobe and general paralysis of the insane is sometimes attended with great difficulty.

Now, double optic neuritis, which is so common in cases of intracranial tumour, is very rare in cases of general paralysis of the insane; consequently, if double optic neuritis happens to be present in a case of general paralysis of the insane, in which the diagnosis lies between general paralysis of the insane and frontal tumour, the diagnosis is very likely to be erroneous. The same statement applies, though with much less force, to localised tenderness on skull percussion.

Again, take *hunger pain, the presence or absence of free hydrochloric acid in the gastric contents, and hæmatemesis.* A few months ago a middle-aged man consulted me because of abdominal symptoms. Typical hunger pain was present and there was an abundance of free hydrochloric acid in the gastric contents. I diagnosed duodenal ulcer. A distinguished surgeon to whom I referred the patient thought it was colitis and sent him to Harrogate, where he was treated without benefit. Three months later a hardness developed in the epigastric region. An exploratory incision showed inoperable carcinoma of the stomach and liver.

During the past 18 months I have had in my wards, first, a case diagnosed as a simple ulcer of the stomach in which there was an excess of free hydrochloric acid in the stomach contents; it was operated upon and found to be cancer. And, secondly, a case which was thought to be cancer of the stomach, in which there was no free hydrochloric acid in the gastric contents; operation in that case showed simple ulceration with considerable inflammatory thickening, which could be felt as a definite hardness in the pit of the epigastrium around the pylorus.

The gastric crises of tabes are occasionally mistaken for stomach ulceration, more especially if, as is sometimes the case, there is hæmatemesis. Since Dr. Hale White directed attention to this point we all, I suppose, recognised that gastric pain, vomiting, and hæmatemesis—in rare cases, even, fatal hæmatemesis—may occur in young women without any obvious ulceration of the stomach. I am disposed to think that in some cases of this kind a superficial abrasion or ulceration was present, and that it healed before the stomach was inspected by the surgeon or pathologist. The occurrence of hæmatemesis in cases of appendicitis may be very misleading. Some years ago I saw a case of acute peritonitis, in which there had been recent hæmatemesis, and diagnosed it as an ulcer of the duodenum which had perforated. Mr. Stiles operated and found that the peritonitis was due to appendicitis. Speaking of appendicitis, I may say that about two years ago I had under my care in hospital a case of pre-ataxic tabes, with very severe intestinal crises, in which an operation for appendicitis had been performed. I was not able to get information as to the condition of the appendix, but I strongly suspect that the symptoms for which the operation was undertaken were due to the tabes, and that the appendix was healthy.

I sometimes think that there is a tendency to attach too much importance to some of the instrumental and other elaborate methods of diagnosis which have recently been introduced—as, for instance, the graphic methods concerned with the heart and circulation—and to underestimate an all-round clinical experience and knowledge. It has recently been suggested that erythema nodosum is a tuberculous condition, one of the grounds for this conclusion being the very marked von Pirquet reaction which occurs in that disease. I admit the fact, but do not agree with the conclusion, for in a condition like erythema nodosum, in which the skin and subcutaneous tissues are more prone to inflame than in health, a positive von Pirquet seems to me to be of little or no importance as a sign of tubercle.

I do not for a moment intend to imply that I undervalue the importance of these instrumental and other methods of clinical investigation. Quite the contrary; the information which they give us is often all-important for diagnosis and in some cases of great value for prognosis and treatment, but they have their place. For the purposes of successful prognosis and treatment nothing will ever replace an all-round knowledge based upon a wide and extensive clinical experience. As an illustration of the value of these instrumental methods, I may mention that I find the sphygmomanometer of great use in demonstrating high blood pressure in cases in which dropsy and other symptoms of cardiac failure are due to, or are associated with, increased peripheral resistance—arteriosclerosis and contracted granular kidney. In these cases, which are often diagnosed as cases of primary mitral regurgitation—a mistake which in my experience is very frequently made in practice—it is sometimes extremely difficult or impossible to detect the high blood pressure by means of the finger.

Mistakes are sometimes due to *too little importance being attached to some fact or facts.* One is apt, for example, to ignore or underestimate the importance of an opinion expressed or hinted at by others, when that opinion does not coincide with one's own view. A case occurred in my practice, now more than twenty years ago, which brought this source of mistakes very forcibly to my mind. In that case, if I had not been able to correct my mistake, very disastrous results would have followed.

ILLUSTRATIVE CASES.

An old gentleman came into my consulting-room with a robust, healthy-looking man, aged 38. He stated that this gentleman was to marry his daughter the following day, but that they had just received a telegram from one of our distant colonies saying the gentleman's relatives objected to the marriage unless I thought it might take place. The prospective bridegroom stated that when he came to this country some eight weeks previously he was run down, that he had quite recovered, and that he now felt perfectly well. The prospective father-in-law stated that neither he nor his family had noticed anything amiss, either physically or mentally, with the supposed patient. With the exception of a little tremor of the tongue, a little thickness of speech when the patient first came into my consulting-room, and some unsteadiness in "fixing," while he was being examined with the ophthalmoscope, I found no evidence of disease, either physical or mental, and stated that I did not feel justified in prohibiting the marriage. On thinking over the case, I became more and more convinced that the bridegroom's relatives would not have telegraphed in the way they had done unless they had good reason for supposing that there was something seriously wrong, and I came to the conclusion that he was probably suffering from general paralysis of the insane, and that it was clearly my duty to stop the marriage. I went early the next day to the prospective father-in-law's house, had another interview with the bridegroom, satisfied myself that the case was one of general paralysis of the insane, and advised that the wedding should be postponed. This was agreed to. Further symptoms soon developed, and before long the patient was sent to an asylum. There were some dramatic features connected with the case, but even at this length of time I do not feel myself at liberty to mention them.

A number of years ago a photograph of a patient in an extreme state of muscular atrophy came under my notice. I ventured to doubt the diagnosis—pseudo-hypertrophic paralysis—and said that it looked much more like a case of poliomyelitis anterior acuta. Some years later I followed up to post-mortem examination a case of pseudo-hypertrophic paralysis which, in its later stages, presented identical appearances with the case I had criticised. A distinguished foreign neuropathologist, on looking through some of my photographs, made the same criticism on my case as I had made on the other case; he was only convinced that it was a case of pseudo-hypertrophic paralysis, and not a case of poliomyelitis anterior acuta, when I

told him that two brothers of the patient had had the disease, and when I showed him sections of muscle which presented all the typical characteristics of pseudo-hypertrophic paralysis.

SUPPOSED MISTAKES OF OTHERS.

Early in my career I learnt *how cautious one should be in publicly criticising the supposed mistakes of others.* In the year 1877 I published a case in which pigmentation of the skin was present during life, and in which (in addition to other lesions) complete caseous destruction of one suprarenal capsule, the other being healthy, was found after death, and suggested that the skin pigmentation was due to the suprarenal lesion. A distinguished assistant physician and lecturer on physiology criticised this conclusion, and stated that Addison's disease was never due to destruction of one suprarenal. Well, I was a young man, more sensitive than I am now, and I felt the public criticism a good deal. But I was able to turn the tables upon my critic, for, on consulting Dr. Greenhow's work, I found that two cases of Addison's disease had been met with in which one suprarenal only was diseased, and that one of these cases had actually been seen and diagnosed as Addison's disease by the very gentleman who had criticised me.

BIASSED JUDGMENT.

Errors in diagnosis are often due to the fact that *one's judgment is warped or biassed* from some cause or another. Most of us probably know how difficult it is to diagnose and treat illness in oneself or in members of one's own family. One's judgment is upset by anxiety and fear; all sorts of terrible possibilities occur to the mind and prevent one taking a cool and level-headed view of the case. We all know how frequently medical students imagine that they are the subjects of heart disease; they come into one's consulting-room depressed and believing they are the subjects of grave organic disease; they leave a few minutes later cheerful and feeling quite well. Probably some of my audience may, because of some temporary fibrillary twitchings, have imagined that they were the subjects of progressive muscular atrophy, or, because of some gouty pains, that they were suffering from tabes.

On the other hand, one occasionally sees the exact reverse of this picture—a medical man the subject of advanced organic disease ignoring it or making light of it, and of the symptoms which it produces, in the most extraordinary way.

Cases of euphoria.—A distinguished member of the profession, in the last stages of cardiac valvular disease with dropsy, at more than one of my visits pointed out with great satisfaction the increased measurement of his calves, thinking, or professing to think, that it was indicative of increased muscular nutrition. A highly intelligent medical man, aged 56, arrived in Edinburgh, invalided home from India, in a dying condition—profoundly cachectic-looking, emaciated to the last degree, so weak that he was unable to walk across the room, with an unhealthy sloughing ulceration of the cornea. He believed that there was nothing of importance the matter, and that the great weakness and extreme emaciation were entirely due to the small doses of morphine which he had been taking. A hard tumour, fully the size of a child's head, evidently malignant, occupied the upper and central parts of the abdominal cavity. The patient and his wife were amazed when this tumour, which could not only be felt with the greatest ease, but which formed a visible projection, was pointed out to them. The patient died a few days after his arrival in Edinburgh.

We all know how *one's judgment is apt to become biassed in favour of some particular theory or idea*, and how, under such circumstances, one sees everything in the light of that idea. Some of the differences of opinion which arise in railway and other compensation cases are due to the fact that the doctors on one side are apt to attach too much, and the doctors on the other side too little, credence to the patient's statements and complaints.

The difficulty of deciding whether a patient is suffering from organic disease or merely from functional disturbance of the nervous system is often very great, even in ordinary private practice, and in cases in which there is no question of compensation—in cases in which there is no suspicion of malingering or of wilful exaggeration. On the one hand, we meet with cases—cases, for instance, of disseminated sclerosis and early general paralysis of the insane—in which grave organic disease of the nervous system is mistaken for hysteria or functional derangement; and, on the other hand, cases in which functional symptoms are thought to be indicative of grave organic disease; in a third group of cases symptoms due to organic disease and functional derangement are both present. Now if those of us who have given special attention to the study of diseases of the nervous system have sometimes difficulty in deciding in which of these groups a case should be placed, it is not to be wondered at that others whose knowledge and experience of nervous disease are, in comparison, very limited, should often have great difficulty in coming to a conclusion, deciding the question, and that differences of opinion, which to the lay mind may seem extraordinary, are apt to occur in courts of law.

All of us who are engaged in hospital practice, and especially those of us who see many nervous cases, will, I am sure, agree that since the passage of the Workmen's Compensation Act, cases in which nervous symptoms are developed after injuries, or supposed injuries, have become much more common; and that in these cases, whether the symptoms are indicative of organic lesion or of functional disturbance, the duration of the illness has become much prolonged. My experience shows that in these cases the patients do not get well, or get well with difficulty, so long as the question of compensation is pending. I personally have little doubt that when the National Insurance Bill is passed the same result will follow in some, perhaps many, of the non-traumatic cases—in cases of ordinary illness—and that the amount of attendance required in the case of patients compulsorily insured will be very much greater than has been calculated. Some people seem to think that it is easy to detect malingering. Those of us who are experienced know that there is nothing more difficult. In the great majority of cases it is not a question of saying whether a patient has disease or has no disease, for, in my experience, actual malingering, when there has been no injury and when there is no disease, is, comparatively speaking, very rare. The difficulty chiefly occurs in cases in which the patient is actually ill or has recently been ill, in saying whether the illness or disease from which he is suffering or has recently suffered will account satisfactorily for all of the symptoms; in saying whether the symptoms which are still present would still have been present provided there was no question of compensation. Conscious or unconscious exaggeration of symptoms, and conscious or unconscious refusal to get well, are, in compensation cases, exceedingly common. It is often extremely difficult, even for the most experienced and expert physician, to give a positive opinion in cases of this kind. It is a practical question, I think, whether such conditions as neurasthenia and hysteria should not be excluded from the medical benefits under the National Insurance Act, though this would, of course, entail hardship on some genuine sufferers.

INADEQUATE OBSERVATIONS.

Erroneous therapeutic conclusions, based on too limited a number of observations, are common; and the worst of it is that these premature conclusions sometimes get into the text-books, and are copied from text-book to text-book, until finally it is definitely stated, and generally accepted, that such and such a drug is of value in such and such a disease. Remarkable coincidences, too, occur which tend to foster the production of errors of this kind. It is a curious fact that the first cases which one treats with a new drug are sometimes the most successful. The first case of pernicious anæmia which I treated with arsenic lived longer (13½ years) than any of the many other cases which I have since treated. That was no doubt a pure coincidence. In the first three cases of psoriasis which I treated with thyroid extract the results were extraordinarily successful. That was perhaps not entirely a coincidence. I have had many other successful cases since, and also many unsuccessful ones. My first cases were all treated with the raw gland, not with tablets, and were all females. I am disposed to think that the raw gland is more efficacious than some tablets, and that psoriasis in the female is more amenable to thyroid treatment than psoriasis in the male. The thyroid gland seems to be more active in the female, and exophthalmic goitre and myxœdema are, as we all know, much more common in the female than in the male.

Nomenclature.—Let me say a word or two regarding nomenclature. Every one will, I suppose, agree that it is a mistake to name a disease after its discoverer. The name should, if possible, give some information as to the nature of the disease or as to its leading clinical characteristics. Is it too much to hope that in the course of time such terms as "Bright's disease," "Graves's disease," "Addison's disease," which are very firmly rooted, will be discontinued? The term "Graves's disease" is specially unfortunate, for in Germany the priority of Graves to the discovery is disputed, and the condition is termed "Basedow's disease." Even at the present day the unfortunate system, as I think it is, of naming diseases after their discoverers is still sometimes followed. A distinguished authority has recently suggested that the term "pernicious anæmia" should be discontinued and the term "Addisonian anæmia" or "Addisonian idiopathic anæmia" given to the disease. Now Dr. Hunter's most important observations and researches show that the disease is probably due to destruction of red blood cells, chiefly in the portal circulation, probably the result of a toxin absorbed from the gastro-intestinal tract. If the term "pernicious anæmia" is to be discarded (but I think this would be a mistake, for I maintain it is a good term which correctly represents the ultimate course of the disease under our present methods of treatment, and correctly differentiates this from other forms of idiopathic anæmia), I would, until the exact cause of the disease is definitely determined, suggest the terms "gastro-intestinal hepatic anæmia" or "gastro-intestinal toxic anæmia" as more suitable than "Addisonian anæmia."

Injurious Effects of Diagnostic Errors.

I have said nothing as to the *injurious effects which may result from diagnostic mistakes and erroneous conclusions.* Most of us probably know to our cost how harmful a mistake in diagnosis—it may be even a quite excusable mistake—may be. On the other hand, many of us have no doubt gained credit and reputation from a correct diagnosis; but while this is so in occasional instances, the public are often quite unable to appreciate at its true value a successful diagnosis in a difficult medical case.

I needly hardly say that the correctness of the diagnosis is often of very great importance to the patient. Take, for example, a case of functional nervous derangement. The prognosis and the success of the treatment entirely depend upon the correctness of the diagnosis. If the case is merely functional, we can, in many cases at all events, cure it, or temporarily cure it, for relapses not infrequently occur; if the case is one of organic disease we are unfortunately in many cases unable to cure it. And here I would point out that it is a mistake to suppose that mere isolation in a nursing home or hospital and a course of so-called Weir-Mitchell treatment will of itself cure the functional cases. In many cases the success of the treatment depends entirely upon the personal influence of the doctor and of the nurse. A doctor who has been treating a case of this kind without success in the patient's house will not be likely to cure her by removing her to a nursing home and putting her through a course of Weir-Mitchell treatment. A doctor who is not sure of his diagnosis, a doctor who cannot impress the patient with confidence and authority, rarely deals successfully with these cases. The composition of the medicine which is prescribed is, in some of these cases, of little or no consequence; distilled water given hypodermically is often very efficacious; the main object of the medicine is to keep up the mental effect produced by the favourable and confident opinion of the physician, and to impress the patient with the belief that something active is being done to cure her. Speaking of distilled water, I may mention an amusing case which occurred in my hospital practice a few years ago. A young woman came home from South Africa because of very severe muscular spasms, which on examination were found to be due to functional disturbance. She was treated by the milk-isolation method, the faradic current, and hypodermic injections of distilled water. In showing the case to my clinic, after her recovery, I emphasised the importance in such cases of the powerful remedy H_2O given hypodermically, and was surprised to see that the patient was very much amused. It appeared that she was a school teacher who was in the habit of giving instruction in elementary chemistry. Fortunately she was cured before she knew the composition of the remedy.

Unfortunate results of a far-reaching kind to the public at large are sometimes due to erroneous conclusions and opinions. Take, for example, the subject of tuberculosis. Koch's conclusions regarding the therapeutic value of tuberculin, Koch's opinion that bovine tuberculosis cannot be communicated to man by milk through the gastro-intestinal tract, were, I think, to say the least of it, unfortunate. The same statement applies, I think, to the late Sir Richard Thorne Thorne's antagonistic views on the compulsory notification of phthisis.

Occasionally, on the other hand, our mistakes lead to beneficial results. In the first case of myxœdema which I treated with thyroid feeding I gave far too large a dose of the raw gland, with the result that acute thyroidism nearly caused the death of the patient. During convalescence the skin peeled off in large flakes; the copious desquamation which resulted from the overdose of the remedy suggested the advisability of employing thyroid extract in the treatment of psoriasis and other forms of skin disease.

I have tried in these, I fear somewhat fragmentary and commonplace, remarks to bring before you some of the chief causes of our diagnostic errors and mistakes, and indirectly to point out that the only way to avoid diagnostic mistakes is, first, to gather carefully and correctly the data—the facts on which the diagnosis has to be based—by exhaustive and accurate clinical observation and examination; secondly, after these data have been obtained to weigh them impartially and judicially, taking all the facts into consideration, avoiding, so far as possible, preconceived opinions, giving due weight to the symptoms and sensations of the patient as well as to the physical signs; and thirdly, to draw a logical and correct conclusion from the premisses. If what I have said will stimulate some of you to observe your cases with greater thoroughness and interest, and will help you to avoid some of the mistakes which I myself have made, I shall be well content.

Address in Surgery

Delivered at the Seventy-ninth Annual Meeting of the British Medical Association

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Mr. President, Ladies, and Gentlemen,—My first desire is to thank—and to earnestly thank—my medical friends for their kindness in suggesting to the Council of the Association that I should be invited to deliver the address in Surgery in my native city. The acceptance of this suggestion by the Council I recognise rather as a mark of its confidence in the arrangements committee than an expression of opinion on my fitness to bear the honours and the burden of so exalted a position. For that mark of confidence I thank the Council, and for the high distinction I have received at their hands I am profoundly grateful.

It is not unfitting at this moment to refer to the recent death of one of the greatest of the older school of Birmingham surgeons. Only a few days ago the last of my surgical teachers passed peacefully away at a ripe old age, and after a long and well-earned retirement from the strenuous labours of a hard professional life. Furneaux Jordan was one of Nature's gifted sons—intellectual, original, honourable, courteous, enthusiastic, and artistic. He was a born teacher and a clever surgeon, and to an early association with him and his work I owe much of whatever surgical success I may have been fortunate enough to attain.

1856. Langston Parker.

In 1856 (the Branch being scarcely two years old) the first annual meeting of the Association in Birmingham was held, and the first Address in Surgery delivered by a Birmingham surgeon—Mr. Langston Parker—the subject of his address being the Treatment of Cancer by Caustics. He advocated the caustic method of treatment in nearly all

forms of cancer on or near the surfaces of the body, either cutaneous or mucous.

> The experience of a moderately busy surgical career (says Mr. Parker), during which time the treatment of an unusual number of cancerous diseases has fallen to my lot, painfully impressed me, as it must have done other surgeons similarly placed, with the inutility of operations with the knife performed for the removal of the disease.

Many of the cases described in detail, upon which his opinions were based, are as remarkable as they are interesting, and furnish material over which a thoughtful and unprejudiced person may pause to reflect. The caustic treatment of cancer by these older methods is to-day regarded as almost criminal; its practice is chiefly in the hands of quacks and charlatans. I say "chiefly" for two reasons: there are still a few surgeons—and I confess to being one of them—who occasionally practise this older method in certain superficial cancers where cutting operations are declined, and with very satisfactory results. There is a much larger body of medical practitioners who deem it legitimate to attempt the cure of cancer without operation—superficial as well as deep—by means of more modern inventions, and doubtless with some success; but I have seen their successes and I have seen their failures, and any wonderment I may have experienced from the former has been overwhelmingly dissipated by the tragedies of the latter. A few years' experience in the surgical wards of the workhouse infirmary of a large city teaches you something of the failures of our art in many directions, for there are to be seen the derelicts of surgery, drifting unrecorded and unproclaimed into the silent ocean of eternity.

The name of Langston Parker will always be remembered as one of the earliest of the English scientific writers on syphilis, and the originator of the treatment of this disease by mercurial fumigation.

1872. OLIVER PEMBERTON.

The second annual visit here was in 1872, when my revered old master, Oliver Pemberton, gave the Surgical Address. He was a surgeon of a somewhat similar type to his predecessor—full of the better characteristics of human nature. He was a manly man, genial, kindly, courteous, conscientious, well-informed, of sound judgment and wide practical experience. He was a fine specimen of an old school of surgeons which has almost ceased to exist—the school which gave us in this country Sharp and Cheselden, the Hunters and Coopers, Syme and Fergusson, Brodie and Paget, and a few great masters still with us.

Mr. Pemberton spoke of the great cities of these kingdoms as so many centres of surgical study, having features marked and distinctive, created no less by local than by personal circumstances, and submitted to his audience the fruits of personal observation connected with some of the chief maladies that demanded the skill of the surgeon here in Birmingham at that time—surgical aneurysms, lateral lithotomy, and urethral stricture being the matters of all others which had chiefly engaged his attention during his 30 years' labour as a practising hospital surgeon. Although this address was delivered no longer ago than the days of my own apprenticeship, these chief maladies which then demanded the skill of the surgeon have only a passing interest for him at the present time. Surgical aneurysms are among the rarest of our surgical disorders, and interest us now chiefly by reason of the ingenious but misguided and unnecessary efforts which are made to devise operations for their cure, more complicated, more dangerous, and less trustworthy than the old procedures of Anel, Hunter, and Syme. Lateral lithotomy has fallen into disuse, satisfactory as an operation though it be. Early in my practice I had a run of nearly 60 consecutive cases without a death; and as for urethral strictures, except when they are impermeable or are complicated by urinary extravasation, multiple fistulæ, or the like, their hospital treatment is now left usually in the hands of a house surgeon.

1890. LAWSON TAIT.

At the last annual meeting in this city in 1890 Lawson Tait was on all hands recognised as the most fitting surgeon to deliver the Surgical Address, and spoke from this platform to a large and expectant audience. His discourse, like himself, was broad, vigorous, daring, dogmatic, and delivered with a style and an ease peculiarly his own.

Much of that address of 21 years ago might appropriately be delivered again to-day. The need for stirring change in the modern teaching of anatomy and physiology to students who are to become practitioners of medicine, the advantages of an apprenticeship system, the need for technical instruction in the handicraftmanship of our profession, the changes in surgical methods and the extension of surgical possibilities, the need for more uniform and more exact records of results, and the influence of fashion in surgery and medicine are themes upon which there is still much to be said.

It was here in Birmingham that Tait's great position was made, and within almost a stone's throw of this hall that most of his surgical work was done. He was a remarkable man—perhaps the strongest personality I have known. In some ways he was a giant, and the power of the man held you like a vice. As a surgeon he was a genius; justice has not yet been done to him, and possibly never will be, for the part he took in that wonderful development of abdominal surgery which occurred in the last quarter of the nineteenth century.

After completing his education in Edinburgh, and holding one or more house surgeoncies in provincial towns, Tait bought a general practice in a Birmingham suburb, and there began his life's work. From this modest position, with no hospital appointment at that time, and no great local influence, he set out on a surgical career, and raised himself in a few years—and in spite of intense opposition at home and at a distance—to a position in the surgical world which was unique. Like other great men, he made mistakes, and possessed himself of faiths which had to be abandoned, but the facts remain that he was the first surgeon who attempted to save the life of a human being dying from the internal hæmorrhage of ectopic pregnancy, and he was the first to open the abdomen successfully for the deliberate removal of stones from the gall-bladder. The operative treatment of diseased Fallopian tubes, and of ovaries, for abscess, were extensions of pelvic surgery entirely his own; he was the first to draw distinctions between ovarian and parovarian tumours; he was one of the early pioneers of kidney surgery, and amongst the first to perform laparotomy for acute and chronic peritonitis, and for peritoneal hydatids; he was the first advocate of abdominal section and drainage for suppurating extraperitoneal hæmatoceles. His ingenious method of performing perineorrhaphy, and finally his persistent advocacy of the claims of exploratory operations, establish a record and demand a recognition such as few men have been privileged to merit.

Tait's first operation for gall-stones was successfully performed on a woman, a patient of Dr. Collis of Bridgnorth, in August, 1879, and it is interesting to note that it was carried out by him with "complete antiseptic precautions."

The story of his early experiences in ectopic gestation is as interesting as it is historical, and may best be told in Tait's own words:—

> In the summer of 1881 (he says) I was asked by Mr. Hallwright to see with him in consultation a patient who had arrived by train from London in a condition of serious illness, that illness having been diagnosed by Mr. Hallwright as probably a hæmorrhage into the peritoneal cavity from a ruptured tubal pregnancy. The patient was blanched and collapsed. The uterus was fixed by a doughy mass in the pelvis; there was a considerable amount of effusion in the peritoneum, but no distinct tumour could be felt above. I agreed with Mr. Hallwright as to the nature of the lesion. This gentleman made the bold suggestion that I should open the abdomen and remove the tube. The suggestion staggered me, and I am ashamed to have to say I did not receive it favourably. I saw the patient again in consultation with Mr. Hallwright and Dr. James Johnson, and again I declined to act upon Mr. Hallwright's request, and further hæmorrhage killed the patient. A post-mortem examination revealed the perfect accuracy of the diagnosis. I carefully injected the specimen, which was removed, and found that if I had tied the broad ligament and removed the ruptured tube I should have completely arrested the hæmorrhage, and I now believe that had I done this the patient's life would have been saved.

The man who put on permanent record such a story of a professional brother and himself was no ordinary person. It was not until Jan. 17th, 1883, more than two years after the incident above related, that his first operation was undertaken. The woman—a patient of Dr. Spackman of Wolverhampton—died immediately after the operation was finished. The reason of her dying Tait at once had the strength to recognise and the courage to confess. He says: "It was due to my own 'bungling.'" The partially extruded tubally attached placenta had obtained new attachments to neighbouring coils and intestines, the most cautious separation of which occasioned fast and copious bleeding at every

point. The lessons he learnt from this first case were priceless. He saw that placental attachments must be left severely alone, that nothing more was required than the removal of the bleeding tube and the clearing away of the escaped blood, and that rapidity of execution was an essential factor in securing operative success. His first successful operation was performed on March 3rd, 1883, on a patient of Dr. Page of Solihull, and during the next five years he operated 41 times with one death.

We can forget Tait's errors in the greatness of his achievements. His operation for the removal of the appendages for the treatment of bleeding uterine myoma has not fulfilled the faith he had in, nor justified the claims he made for, his discovery. Next to ectopic pregnancy it was the subject which most interested him, and the operation he originated for its treatment was the piece of his life's work of which he was most proud. Writing of this operation in 1889 he said:—

> The permanent and complete efficacy of this method of treatment has been established by evidence beyond all cavil; in fact, it stands unrivalled in the history of modern surgery; we have an absolute cure in our hands. I am satisfied the risk to life may be reduced to a vanishing point.
>
> Hysterectomy (he goes on) is a coarse and much more dangerous method of accomplishing the same ideal (arrest of menstruation), and it is an operation I detest.

Tait was wrong; for few surgeons, I imagine, follow this practice now, although some among us occasionally had—I certainly did—the satisfactory results claimed by him for the procedure. Hysterectomy is the treatment generally adopted to-day for all uterine myomata, whether bleeding or not. I question whether the last word has yet been said on the necessity for the treatment of this class of non-malignant uterine tumours by the major sacrifice of a very useful organ.

In the eyes of his contemporaries Tait's greatest error—indeed, it was looked upon as his besetting sin, which nothing could condone—was the attitude he took up with regard to early Listerian practice and teaching. Whilst accepting to the full the Pasteurian theories of fermentation and putrefaction, he denied that they applied alike to *living* as to dead tissues. He held the view—in common with other distinguished men of his day, and with a still greater number at the present time—that *living* tissues are themselves capable of dealing with the germ life of the ordinary atmosphere, and on the strength of this faith he was then removing ovarian tumours, and without the aid of the Listerian methods of his time, with a mortality of between 3 and 4 per cent. His wounds were dressed with dry absorbent cotton, very much as used everywhere to-day, as Gamgee had employed for years previously, and as I have done since I was Gamgee's house surgeon in 1877.

I should like to say a few words here on what is now euphuistically spoken of as "surgical technique," formerly as wound treatment, particularly with regard to its ritual and its expense. The great principles upon which operative success depends are to-day exactly the same as when Lister first preached the gospel of antisepsis. Absolute cleanliness is the essence of the measures by which he carried those principles into practice. Many as have been the modifications of our operative methods since the early "seventies" of last century, it is upon the completeness with which this central idea has been secured that the success of each method depends. It needs but little ceremonial to make and keep us clean either in body or in spirit. Simplicity, sincerity, and steadfastness will suffice in both. The modern tendency to make of a surgical operation a kind of ritualistic function is greatly to be deplored. Harm often results therefrom I am sure. We can be careful without being fastidious, and efficient without becoming hysterical, and elaboration of ceremonial will not condone a want of manipulative dexterity or absence of readiness in emergency.

Soap and scalding water are our safest and simplest antiseptics, and if we add spirit to the list, the scruples of the most sensitive of surgeons should be satisfied. Linen straight from the laundry costs but little, and is all-sufficient. Gauze can be purchased for less than a penny a yard, silk for 3*d.* a skein, clean cotton-wool for less than a shilling a pound, and bandages for a few coppers each. All these are inexpensive, but all are efficient, and all are simple. The increasing cost of surgical work is chiefly due to the caprices of fashion and the demands of ritual, and partly also to the fancies of architects and the seductive enterprise of surgical instrument-makers. Good surgical work can be done in a clean and well-lighted, airy bedroom if the surgeon will only take the necessary trouble. Many of the improvements of a modern hospital are as much for the convenience of the working staff as for the welfare of the patients.

EXPLORATORY OPERATION.

Exploratory operation as a means of accurate and early diagnosis had been advocated long prior to the days of Tait, but he it was who especially extended the application of this great surgical principle to diseases within the abdominal and pelvic cavities.

In 1876 "the great impediment to the adoption of gastrotomy (abdominal section) is the uncertainty of diagnosis," wrote Parry of Philadelphia, and Tait commenting on this statement in 1889, said:

> Mark the importance of this sentence, for this sentence it is, reiterated by almost every writer on abdominal surgery up to 1878, and continued as a tendency by a great many still, which has stood in the way of our success. I have long since thrown it to the winds, and when I find my patient *in danger of death* from conditions within the abdomen which do not seem to be clearly of a malignant nature, but a correct diagnosis of which is impossible, I open the abdomen, and at once make the diagnosis certain, and a successful treatment possible. I do the same thing also when the conditions are such that the patient's life is miserable by reason of suffering which cannot be relieved, or, at least, has not been by all other measures.

The result has been an enormous advance in abdominal surgery, obtained only after a severe struggle with the authority of the elders, who asserted that the abdomen was a region into which the writs of ordinary surgical laws should not run. He further adds, and with characteristic brusqueness:—

> Absolute accuracy of diagnosis in the abdomen is *very far* from being possible: only the ignorant assert that it is, and only fools wait for it.

The wider acceptance of this great principle of exploration has done more to further the advance of surgical knowledge than anything since the introduction of antiseptic surgery. The general body of the profession takes somewhat exaggerated views of its risks and its disappointments, confiding more in new discoveries of a non-operative kind—imaginary or real, orthodox or unorthodox, scientific or empiric—frequently confusing exploration with experiment, and not altogether without reason. The two measures are essentially different; one is a matter of diagnosis, the other of treatment; one is often a sacred duty, the other is sometimes a surgical sin; and whilst I plead for a more generous consideration of the advantages of the former, I urge a strengthened watchfulness of resistance to the latter. To uncover a kidney to determine the presence or absence of a stone therein is an exploration; to stitch the dropping organ to the ribs because a head aches is an experiment. Experimental operations to-day are greatly on the increase, and are not to be justified merely for the reason that if something is known to be the matter, something must be done; or that they can be carried out with little danger to life; or that the malady for the relief of which the experiment is made is positively fatal unless something can be found for its relief. Gentlemen, there are many things in the world we cannot change, and to attempt to alter them is an act of folly. Water will continue to run downhill, however desirable in human interests it might be at times that it should flow in the opposite direction. We cannot attain the unattainable in surgery more than in other things. We must accept the inevitable, however sadly, or however great the cost.

I do not say that experiment shall not enter into the question of operations at all; it would be illogical were I to go so far, for the reason that much of the work of the daily practice of every medical man is essentially of the nature of experiment, and it is often only through experiment that later efforts come to be made in the right direction.

In a mere exploratory incision for the purpose of ascertaining whether an abdominal tumour is malignant or not no special difficulty is experienced or risk incurred, an incision large enough to admit a finger being all that is necessary. This sort of exploratory operation is practically nothing more than a tapping, but is of the greatest possible value in many circumstances. The whole abdominal cavity cannot, of course, be explored through one such incision, and in practice it is rarely necessary that it should be; the surgeon knows beforehand, from objective symptoms, the quarter in which

any malady is situate, and there his exploratory opening will be made. It is surprising what can be learnt by a trained and educated finger passed through the abdominal wall at certain sites.

If a complete abdominal exploration has to be made through a single incision the opening must be made sufficiently large to admit the whole hand, and is, of course, more serious, but even then the death-roll is a negligible quantity, providing the exploration is carefully and rapidly made and nothing beyond this is done. This larger incision is often necessary, to determine whether a particular tumour can or cannot be removed. In this exploratory handling of malignant tumours it is of vast importance that the capsule of the tumour be not injured, owing to the great vascularity of the tissue contained within, and the difficulty experienced in checking such bleeding. Did time allow I could relate many instances where the neglect of this elementary rule has led to disaster of the most distressing character in what ought to have been simple and safe procedures.

KIDNEY DISEASES AMENABLE TO SURGICAL TREATMENT.

Great as has been the advance in our means and methods of investigating the nature of surgical kidney diseases during the last few years, certainty of diagnosis is still far from general, and exploration as the final method of determining the exact nature of a renal malady is still sometimes necessary, and may always be so in such affections as hypernephroma, adenoma, papilloma of the renal pelvis, or congenital cystic disease.

In my student days kidney disorders were dealt with solely by the physicians, whose time and interests were chiefly concerned with Bright's disease in one or other of its forms. I remember quite well how my professor of medicine, at the end of a series of lectures on Bright's disease, disposed of all the other kidney troubles within a couple of hours. Since those easier days "surgical diseases of the kidney" have whole volumes to themselves, and their curability or relief is more in our hands than was formerly thought to be possible.

The great bulk of these diseases are to be diagnosed by simple methods, by urinary investigation, by physical examination, by accurate history, and finally by clinical common sense. It is only in exceptional cases that the cystoscope, the radiograph, and the ureteral catheter are wanted, and sometimes they may be wanted badly. An otherwise healthy man subject to acute, paroxysmal, unilateral lumbar pain, shooting forward to the groin and testicle, aggravated by exertion, with concurrent or consecutive hæmaturia and oxaluria, ought to have a renal calculus; and whether your cystoscope, or ureteral catheter, or radiograph tell you so or not, should his attacks continue to recur an exploratory operation of the painful kidney ought to be made.

There is a feeling in the minds of most people that instruments of precision, such as the Roentgen ray apparatus, the camera, the 'graphs and 'scopes of various kinds cannot possibly err, that their evidence is absolutely unimpeachable. This may be true of the instruments themselves, but whenever and wherever human judgment or observation has to come in, there also comes in liability to error. Let me illustrate my meaning by a few personal experiences of radiography in the diagnosis of urinary stone.

A few weeks ago I operated on a patient from whose right kidney a stone had been removed some 18 months previously by another surgeon, a urine-leaking sinus resulting. An expert radiographer had recently declared the presence of another stone to which the persisting sinus was naturally attributed. I cut into this kidney for the purpose of removing this stone, which I failed to find. I then removed the kidney with its pelvis and the upper part of the ureter entire. There was no stone anywhere.

More than two years ago I saw a strong, healthy man with classical symptoms of renal calculus. To confirm the diagnosis the radiographer was appealed to. He found no stone in the kidney, but reported the presence of two small calculi in the ureter. Operation was deferred in the hope that these small stones might be passed naturally. After waiting a year I determined to explore both the kidney and the ureter and had a radiograph taken the day before the operation to be sure the ureteral stones had not in the meantime shifted their position. The radiographer then reported that there were two stones in the kidney, each of the size of a horse bean and alike in shape, and that the supposed ureteral calculi were probably phleboliths. I cut on to the kidney from the loin and readily removed one stone, but the second was nowhere to be found. I felt confidence in the thoroughness of my kidney exploration, gave the opinion that the two shadows shown on the plate were shadows of the same object, and closed the wound. The man recovered easily after the operation and has had absolutely no symptoms since.

A distinguished surgeon related to me an exactly similar experience which befell him a year or two ago—where he was led by the dogmatism of the radiographer to reopen a closed wound for a second stone which was not there, and nearly lost his patient in consequence.

A colleague had recently a consecutive series of five cases of ureteral calculus where radiographic evidence was negative; operation proved the presence of stone in every instance.

It is well known that pure uric acid stones may be invisible to radiography, and overlooked renal and ureteral calculi might be assumed to be of this nature, but recent researches of great value carried out in the Liverpool Medical School show that every one of a consecutive series of 24 stones removed by operation and submitted to careful chemical analysis were chiefly composed of oxalates and phosphates of lime. Lime-containing calculi give radiographic shadows, and most, if not all, of the Liverpool cases had been accurately diagnosed and localised before operation.

I have no desire to minimise the value of radiography in the diagnosis of urinary calculus disease; indeed, I recognise it as of the greatest value and feel more at ease in a contemplated nephrolithotomy when I am supported by the confirmatory assurance of the shadow in a radiograph. Its affirmative value is of the high st, but too much importance must not be attached to its negative opinion.

Ureteral catheterisation has its limitations and its fallacies. It is of the greatest use in the detection of albumin, tube casts, and micro-organisms in the urine, from one kidney alone. Obstruction in the ureter cannot be recognised with any degree of certainty by catheterisation; many cases are already recorded where operation has shown that such catheter findings have not existed. Stones in the ureter (as in the urethra) have often been passed over by the catheter without recognition.

A very fair idea of the size and quality of a kidney and of its pelvis can be obtained by a finger inserted through a small exploratory opening in the linea semilunaris; but if a more thorough examination is needed a lumbar incision should be made. A vertical incision from the tip of the last rib downwards gives the best access, but if the ureter is to be followed into the pelvis the oblique downward and forward incision is better. For exploration a kidney should be thoroughly freed from its surrounding tissue and brought on to the loin whenever possible. Stones, tumours, cysts, abscesses, tubercle can be recognised without splitting the kidney by manipulation between a finger in the hilum and a thumb outside.

At the beginning of my professional life stone in the bladder was quite common in this district. Fifteen years later bladder stones were fewer, but kidney stones had more than taken their place; to-day bladder stones are fewer still, kidney stones are not so plentiful, and ureter stones are increasingly in evidence. It is not easy altogether to say why.

APPENDICITIS.

It needs courage nowadays to say anything at a meeting of medical men on the subject of appendicitis, particularly so in the middle of a hot July day. So much has been said and written, and presumably so much has been learned, that nothing now remains to talk about. And yet, strange though it may seem, there are schools of opinion divided on almost every point of the subject on which it is possible for human minds to disagree. The more I see of the disease the more satisfied I am that it is primarily a mechanical affection; that obstruction is an essential factor in its genesis, the consequence of such obstruction being determined and controlled by germ activities on the one hand, and tissue proclivities on the other; that so long as no obstruction exists in the channel of the organ or in its opening into the cæcum the omnipotent germs of the intestinal canal are powerless for evil.

The appendix is part and parcel of the large intestine, fulfilling the same function, receiving the same contents,

altering them in the same manner, subject to the same disturbances and disorders, differing only in the mechanical consequences of its peculiar anatomical construction. The earlier pain of appendicitis is due to tension within the cavity of the organ; the later to the inflammatory involvement of peritoneum. I have seen acute appendicitis in the first year of life; I have seen a first attack come on at 84. The diagnosis of both acute and chronic appendicitis, although often a simple matter, is not always possible without the aid of exploratory incision. It would be better for the public and ourselves if this fact were more constantly kept in mind. It might tend to clear away many difficulties and much misapprehension which arise from time to time between our patients and ourselves where operative measures have to be discussed and operative results explained. Appendicitis is still occasionally wrongly diagnosed, but whereas formerly the disease was overlooked, to-day it is recognised where it does not exist, and when we remember its frequency of occurrence and its gravity, it is not surprising that it is "appendicitis" which usually comes first to mind in an acute abdominal outbreak, occurring unexpectedly during ordinary health.

As a rule appendicitis declares its own presence if we will but listen carefully to the story it has to tell us, but we must listen with an open mind, for it is our preconceived ideas which lead us into error in most of our wrong judgments in all matters. The most reliable and most consistent of its early signs is local tenderness, always to be elicited if carefully examined for in the groin, the loin, the right side of the abdomen or the rectum. This tenderness signal symptom must be sought for early; it becomes masked and modified by extra-appendical inflammatory extensions. The presence of a localised, well-defined swelling means suppuration either within or outside the organ, and the sooner such swellings are explored the safer for the patient, provided too much is not done at the time. Such localised swellings may disappear slowly by pus absorption and tissue resolution, or more quickly by pus finding its way into an adjacent coil of bowel, usually the cæcum. I need scarcely say that pus appears in the stools only when an abscess has opened directly into the rectum or sigmoid flexure. Localised swelling is absent altogether only in the fulminating general peritonitic type, which is usually fatal whatever may be done for it. If every case of appendicitis was recognised and operated on within 12 hours of inception it would almost cease to be a mortal disorder, and if during the next 12 hours even the general mortality would be lower than it is. After 24 hours consideration has to be given to several matters before one can determine in any given case what is the safest step to be immediately taken, but on one point I am quite satisfied—that any interruption in the forward progress of an improving case calls for immediate operation. Whether it is safer to open the belly before opening the bowels in acute appendicitis or *vice versâ* I cannot discuss to-day. I have tried both procedures, and give my verdict unhesitatingly in favour of the latter. On the wisdom of the interval operation we are doubtless all agreed.

According to the Registrar-General's returns 2,276 persons died from appendicitis during the year 1909 in England and Wales, in the proportion of four males to three females. In the two larger Birmingham hospitals last year 432 operations for appendicitis were performed, and with a mortality of 8 per cent. in the acute cases only. Assuming the disease to be equally prevalent through the whole community—and there is no reason why it should not be—there must be nearly 40,000 cases annually in the United Kingdom, and yet at the time of the last annual meeting of the Association here appendicitis was an unrecorded malady in our hospital statistics, and did not appear in the Registrar-General's returns.

SURGERY OF THE STOMACH.

Abdominal operations have taught us many strange things since the Association was last here concerning the workings of our internal machinery, but none more striking nor more valuable, in my opinion, than the lessons to be learnt from the phenomena attending a successful gastro-enterostomy for pyloric stenosis. Here, prior to operation, we have faulty digestive processes of every conceivable kind flagrantly evident—changes in the acid content, in the peptic factor, in the motor mechanism; with flesh loss, weakening of body and of mind. Every attempt to change this state of things by drugs and diet has failed during a long period of trial. A free opening is now made between the stomach cavity and the gut beyond the site of obstruction—nothing more—no drugs are given, no artificial ferments supplied, no changes in the foodstuffs poured in from above, no electricity, no hypothetical science of any kind, and what do we see? In most cases, at once a remarkable change; every sign of faulty digestion begins to disappear, and in a short time the whole complicated and elaborate process is carried on in a normal manner. It looks, therefore, as if a chief factor in faulty digestion may be undue retention of food in the cavity of the stomach, and that unsuitability of material put into the gastric beaker or abnormal quantities and qualities of the digestive juices added thereto by the secreting glands may be altogether of secondary importance.

I know of no more striking example of surgical advance than is seen in the modern operative treatment of gastric disease, and when we remember how small is the ordinary death-rate of stomach affections this development becomes the more remarkable and can only be explained by an increasing confidence of the profession and the public in surgical operative procedure. Of all the organs of the body the stomach is most subject to disturbance of one kind or another. Dyspepsia figures largely wherever medicine may be practised. Until quite recent times faulty digestions have been dealt with chiefly as purely functional affections. Organic lesions were looked upon as exceptional—the acute ulcer of young women, the atony of middle life, the cancer of the aged, with an occasional pyloric stricture, covered the whole ground of organic stomach disease. To-day the fact is established beyond question that all, or nearly all, chronic indigestion is due to organic gastric or duodenal disease. Although stomach surgery was being performed more than 20 years ago, it is only within the last few years it has made its real advances and established itself on a firm and permanent footing. I sometimes think it is going along too fast, for it is now quite an ordinary thing for a hospital out-patient to reply in answer to your inquiry of "Well, what is the matter with you?"—"I have got indigestion, and want to be operated on"; just as formerly he would have said, "I have got the wind and want something for it."

Accurate diagnosis of stomach disease is not always possible, despite the splendid work already done by the physician, the physiologist, the pathologist, the bio-chemist, and the radiographer. Appeal must often be made to exploratory operation, for it is only by sight and direct touch that precision of diagnosis in stomach diseases can be secured, and it is not until certainty in this direction has been established that the necessary treatment can be determined. Exploration should be the first step in every stomach operation, and one would think it unnecessary to add that unless something definite is found nothing definite should be done; the operator's hand must be restrained unless it is manifestly clear that the structural condition before him demands mechanical rearrangement or removal. There should be no mistakes in the way of speculative operations, even although the opportunity for experiment is before you; the temptation to do something must be resisted.

A considerable experience in stomach surgery, begun more than 20 years ago and continued on up-to-date lines to the present time, leads me to the following conclusions:—That precision in the diagnosis of many stomach diseases can be secured only by exploratory incision, and that earlier resort to this procedure in many cases is very desirable. That where pyloric obstruction is present, as evidenced by periodic vomiting, treatment by posterior gastrostomy is eminently and uniformly satisfactory. Pain in such cases may be altogether absent. That where vomiting is absent or only occasional, and pain is the symptom for which a patient seeks relief, gastro-enterostomy has its failures. That acute ulcers of the stomach, except when perforating, do not demand surgical treatment; chronic ulcers, on the other hand, do; but what that treatment is to be I am uncertain. Some should be excised, some are cured by gastro-enterostomy, some should be infolded, and possibly some should be left alone by the surgeon. That operations for gastric carcinoma are at the present time unsatisfactory, probably owing to their non-early recognition. That dilated stomachs, in the absence of associated lesions such as pyloric narrowing or ulceration, may be left unoperated on. That gastric hæmorrhages are not to be dealt with satisfactorily by surgical operation. They do better in the hands

of the physician. Duodenal hæmorrhages, too, are not readily amenable to surgical treatment. Gastro-enterostomy does not meet their urgent indications, although it may contribute to the healing of the ulcers in which the bleeding originates. That chronic duodenal ulcer is a pathological fact; it is no mere surgical apparition as is sometimes suggested. Its frequency in adult males is remarkable; its diagnosis prior to exploration is highly probable, but by no means sure; its recognition at the time of operation is certain, and its relief by operation is most satisfactory, I cannot say invariably successful. That cancer of the stomach here in Birmingham does not appear so often as a sequel of chronic ulceration as it is said to do in many other places. The majority of patients with cancer of the stomach give no account whatever of long-standing or of past indigestions. It appears usually as a primary indigestion in the middle-aged or elderly, and in all such cases I agree with a recent writer in the *British Medical Journal* that by the failure of medical treatment quickly to relieve such indigestion a suspicion of cancer should be aroused and an exploratory operation at once performed.

INTRACRANIAL AND INTRATHORACIC SURGERY.

Exploration has been of the greatest value in the treatment of intracranial conditions, and has brought into the range of curability many otherwise fatal affections. The purely experimental work of the scientific physiologists has taught us much in connexion with intracranial disorder, but exploratory operation has amended and amplified the knowledge thus acquired, and has made it of practical value in the treatment of disease. Intrathoracic maladies do not lend themselves readily to operative exploration, owing, of course, to the serious disturbance of the respiratory dynamics attending open incisions into the thoracic cavity, but even here its use is considerable.

My own interest in exploratory operation would lead me to dwell longer on this theme, but I must refrain, and devote the time that remains to the consideration of other matters.

INGUINAL COLOSTOMY.

Remarkable are the lessons to be learnt from a consideration of the modern operation of inguinal colostomy in two stages. Stage number one, as you are aware, consists in bringing out of the abdomen through a small incision in its walls a complete coil of the sigmoid flexure, some 6 or 8 inches of bowel, and of fixing the coil outside by means of a glass rod pushed through its mesentery, or in some other manner. A covering dressing of gauze or cotton is fixed over the extruded gut and the patient returned to bed. A mechanical obstruction of the bowels has thus been artificially produced of the most complete kind—I say obstruction as distinct from strangulation. Not the slightest pain follows the procedure; the patient lies perfectly comfortable for many days without a symptom of abdominal disturbance of any kind; nothing is passed per anum; he takes a simple liquid diet and sleeps soundly; he has neither pain nor vomiting; his tongue does not fur and his head does not ache; his pulse-rate is normal and his temperature does not move; his belly is neither distended, tender, nor rigid, and yet during the whole time the obstruction of the bowel continues. To me the object-lesson is of extraordinary interest, and I am constrained to ask myself whether some of the views commonly held and acted upon in connexion with "stoppage of the bowels" may not possibly need revision. I am often called in consultation to see cases of supposed primary "intestinal obstruction," where the symptoms of sudden severe pain, vomiting, and constipation are attributed solely to the fact that the bowels have not been moved for 24 hours or so. Simple arrest in the onward movement of bowel contents clearly does not give rise to these symptoms; some other factor must always be present to produce them, and upon this factor does the obstruction depend. The more I see of acute abdominal disease, the less often do I meet with intestinal obstruction as a primary affection; it is secondary or symptomatic in the large majority of cases. Early in my surgical career I was frequently seeing cases of acute intestinal obstruction, and opened the abdomen for their relief as a routine procedure, invariably finding, as I believed, loops and kinks and twists and indeterminate bands, when something else more real was not in evidence. I published a paper in the *British Medical Journal* at that time, with an account of some 20 operations. Although of late years I have seen much more acute abdominal illness than I did then, I am not meeting one-fourth as many cases of intestinal obstruction calling for immediate treatment by surgical operation. Whether it is that the malady has become less frequent or that the bowels have acquired the knack of unravelling themselves in this age of higher education, or that I am now failing to recognise the malady, or that greater experience has modified my earlier predilections, I leave you to think.

The second stage of this same operation (inguinal colostomy) furnishes further food for reflection on some of the problems of intestinal function and disorder. Four or five days after the first stage has been carried out the coil of gut is exposed—it is lymph-covered and tightly adherent to everything about it; to a certain degree it is inflamed, but it is absolutely insensitive to pain. It may be cut across with scissors, it may be pinched or crushed, it may be slowly burned completely away with the actual cautery without the conscious patient showing the least discomfort at what is being done. The insensitive bowel wall is not dead; it bleeds freely when cut—indeed, its vascularity is excessive, and its sensibility, therefore, if it had any, should be exalted. This absolute insensibility, pervading as it were all the bowel tissues—mucous, submucous, muscular, peritoneal, nervous, vascular, and lymphatic—is hard to reconcile with the common clinical experiences of belly-aches met with daily by every medical practitioner.

INGUINAL CÆCOSTOMY.

It is well known that lengths of the digestive tract, varying from inches to several feet, may be removed without permanently affecting the general health. Whatever may be our final conclusions as to the advantages or the necessity in chronic constipation and in tuberculous joint diseases for doing away altogether with the function of all but the terminal few inches of the large intestine, the fact will remain that such a physiological deprivation is compatible with long and healthful life. More than twenty years ago there came into my hands a woman with a rare form of colon disease, probably inflammatory in its nature, certainly not malignant. She had suffered from bowel symptoms, pain, looseness, irregularity, and slimy stools for the previous 11 years, dating her trouble back to a confinement at that time. She was a confirmed invalid when I first saw her. The rectum was almost occluded; the stools dribbled from her in liquid form, and her distress was very great. On opening the abdomen with the intention of doing an inguinal colotomy I found the whole length of the large intestine from cæcum to anus was indurated, puckered, and contracted to the thickness of a finger, looped like a fleshy rope across the abdominal cavity. Its lumen was narrowed throughout its whole length; it had become practically nothing more than a long fistulous track, with one end at the ileo-cæcal valve, and the other in the perineum. The small intestine was normal in appearance but distended. There was nothing to be done obviously but to make an artificial and permanent opening in the cæcum as near the valve as possible. Cæcostomy is, as a rule, one of the most disappointing and distressing of all operations for the relief of intestinal obstruction. The constant escape of liquid contents from the small intestine directly through on to the skin gives rise to a widespread area of cutaneous irritation and rawness, for the relief of which local treatment is of little avail. The outlook, therefore, for this poor woman was gloomy. She began, however, to improve in health at once after the operation. Little by little she learnt to manage her disablement with greater and greater comfort to herself, and at the end of a year her general health was completely restored. She has lived an active life ever since, managing her domestic affairs, bringing up a large family, and taking an active part in her husband's business. For more than 20 years she has continued in good health, although not a particle of her foodstuff has passed into her large intestine.

RADICAL CURE OF HERNIA.

Operation for the radical cure of hernia is a practical achievement of recent years. The only radical feature in the operations of our forefathers is that they are all radically bad. In 1890 no such operation appeared in the General or Queen's Hospital statistics; last year 476 are recorded. A few hernias were "radically cured" in my student days by the

puzzling operations of Wood and Wurtzel, but the hernias invariably recurred in those patients who were fortunate enough to survive the operations.

There is no one operation practised for each of the several kinds of hernia. Every surgeon has his own methods, and thinks them better than anybody else's, and it is quite possible they may be, but certain definite principles are now established, and so long as they are acted upon, it matters little by what means, results will be almost uniformly good. Recurrence liability varies under many circumstances—age, variety of hernia, fatness, &c.—but, including favourable and unfavourable cases alike, it should be less than 5 per cent. In children and young adults there should be none. The mortality-rate, too, varies in groups of cases, but should aggregate less than ½ per cent. Hernias of all sizes, at all ages, and in all situations, can be satisfactorily and comparatively safely dealt with. The most important step of the operation has to do with the sac of the hernia. The neck of the sac should not be ligatured, but the peritoneum beyond the neck, and when this has been done and cut across below the ligature it matters little whether the sac is removed or not. The closure of rings and canals is said to be a matter of secondary importance; in my opinion it should always be done, except in the inguinal hernias of very young children, and well done too. It is interesting to note that modern operations show the sacs of most hernias to be congenital and not acquired, an anatomical fact observed and insisted on by the anatomist Roser more than 70 years ago, and denied by almost everybody else up to quite recent times. The golden rule in surgery applies particularly to radical cure operations: Know what you want to do; see what you are doing; and do it simply.

PROSTATECTOMY.

Amongst the surgical advances of this present century the treatment of enlarged prostate by enucleation stands conspicuously prominent, and without discussing for a moment the question as to whom belongs the credit of first removing this organ by operation, the credit for having established the faith of the profession in the feasibility of the procedure is undoubtedly Freyer's, the great merit of whose work is in no way affected by small details as to the exact nature of the parts removed, or in the precise method by which their removal is effected. The term "prostatic hypertrophy" is a misnomer, the enlargement being due to the adventitious presence within the substance of the prostate of distinct neoplastic structures, adenomatous in their nature, developed doubtless from the normal gland tissue, but as distinct from simple hypertrophy as the common adenoma of the female breast is from general mammary overgrowth. The reason for the development of these adenomatous masses we do not know; none of the many explanations offered quite fit the facts, but that they are of very common occurrence is certain. As visiting surgeon to the Birmingham Workhouse Infirmary I have access to an enormous mass of pathological material, which ought to be put to better purpose, and ought to be accessible to the students of our medical school. Some years ago I removed post mortem, and carefully examined, the prostates from a consecutive series of 30 men between the ages of 21 and 94, dying from various maladies. Three of the 30 were under 40 years of age, and all their prostates were normal; but of the remaining 27, 5 only were normal, 22 showing well-marked adenomatous growths. The detailed figures are interesting: Of 6 in the forties, 5 were enlarged; of 3 in the fifties, 2; of 8 in the sixties, 6; of 8 in the seventies, 7; 1 in the eighties and 1 in the nineties were both enlarged. Of normal prostates there were 1 in 6 in the forties; 1 in 3 in the fifties; 2 in 8 in the sixties; 1 in 8 in the seventies, and none above that age—that is to say, over 40 years of age less than 1 prostate in 5 was normal, and over 50 years less than 1 in 4.

A discovery such as this was not comforting to a man who was then far advanced in the forties, but all anxiety was quickly allayed by the results of investigation in another direction. At that time there were 1071 men over 50 years of age in the workhouse and its infirmary, at least 750 of whom we may take it had some amount of prostatic enlargement; four only were under treatment for prostatic troubles—a little more than ½ per cent. I quite realise that what is true of a body of men living simple, healthful lives under institutional discipline may not be true of men at liberty to live and to act as they choose, but it is clearly not necessary to advise every man whose prostate is enlarging to submit at once to a radical operation for its removal, not even when early symptoms have begun. I have seen several prostatics living healthy, active lives the whole of whose urine has been drawn by self-catheterisation for 20 years or more without trouble or inconvenience. Prostatic retention occurs sometimes where overgrowth is not present, the obstruction being caused by a true stenosis of the prostatic vesical inlet. The symptoms of this form of prostatic difficulty are like those of ordinary enlargement, but digital examination per rectum discloses a small prostate where a large one might have been expected.

I am performing regularly both suprapubic and perineal prostatectomy, and find that each has its merits, and that neither can claim to be the better for all cases. The suprapubic enucleation of a large soft adenomatous prostate from a man of moderate size is an ideal manipulative procedure—I know nothing more satisfactory in the whole field of operative work; but the enucleation of a slightly enlarged, tough, fixed organ from within the bladder of a bulky drayman is quite another business, and may be more easily and more satisfactorily accomplished by the perineal route. Each operation has its difficulties and its dangers, and in these matters there is little to choose between them. The suprapubic operative mortality is rather the higher in my hands, probably because the more serious cases have been dealt with by this method. The after-results of both operations are about the same. It is impossible to express in figures the functional results of surgical procedures, and one is constrained, therefore, to state them in general terms. Usually the results of prostatectomy are excellent; in the majority functional restoration is complete, and the patient is eminently satisfied; in a fair number, however, marked improvement is all that can be claimed, whilst in a few disappointment follows. Impotence probably always results, but the sexual function is not always abolished. Prostatectomy for carcinoma and tubercle has been disappointing in my hands.

THE GROWTH OF MEDICAL LITERATURE.

One of the trials of a conscientious doctor's life is the flood of journals and new books which constantly overwhelms him. Every one feels the desire to read regularly at least one of the two leading weekly medical journals of his own country—and there ought to be no difficulty in his doing so; but when we find that our own *Journal*, with its Supplement and Epitome, contained last year more than 4750 pages (exclusive of advertisements, of course), more than 13 reading pages for every day in the year, one sees how difficult it is; and when the second weekly is to be read, when the quarterlies, when the new books, when the research, and when the reflection, I do not know. No wonder there are doctors who make no attempt to keep abreast of the times by reading current literature, but are content to treat their patients by methods learnt from their early teachers, and proved to be the best by their own experience, relying on help from a professional brother in exceptional circumstances.

During the last century the memoirs and original works in medicine and the allied sciences numbered at least half a million, and it is not therefore surprising that the great Velpeau said towards the end of his busy days that "the greater part of his life had been taken up in unlearning what was untrue." The man who proclaims a new discovery in a method of treatment or a means of more certain diagnosis incurs a great moral obligation, and the journal which distributes the information to the profession and to the public a greater. It would be better for all of us, doctors and patients alike, if every new discovery could be investigated and approved by an official and competent body of men especially appointed for the purpose before it was let loose in a world clamorous to do something or to have something done whenever anything is the matter, and, moreover, having greatest faith in the latest fashion. Another function such a body could usefully discharge would be that of selecting, or of compiling if necessary, a text-book of practical use for students and practitioners for each of the different subjects that medicine and surgery embrace. These standardised text-books should be selected for, or revised in, a term of years, and should not be encyclopædic in their nature, and the examining bodies should adopt them as their standard of knowledge in all qualifying examinations.

HOSPITAL TREATMENT AND THE INSURANCE BILL.

The continuous increase in the number of operations performed by surgeons is a matter of common knowledge, but unless one's special attention has been directed to the question one cannot have any idea how great this is, or how from year to year it grows larger and larger. In 1872—the year in which my medical studies began—316 operations were performed in the two general hospitals in Birmingham. Eighteen years later, in 1890—the date of the last annual visit of the Association here—this number had almost trebled, the exact figures being 925; while last year this trebled figure had nearly quintupled again, the number then being 4472. The public operative work at these two hospitals has, therefore, multiplied more than fourteenfold, and that within the period of my own working days. It is interesting to note that the number of beds in the two hospitals has only slightly increased. Each surgeon is doing more operative work to-day than were the united staffs of both these hospitals little more than 30 years ago.

The above figures represent only a portion of the hospital operative work of the city, for in addition to the two general hospitals there are the Women's Hospital, the Children's, the Eye, the Ear and Throat, the Orthopædic, the Skin and Urinary, and the Homœopathic Hospital, and the Workhouse Infirmary, in each of which day by day operations are being performed. Adding their figures to those already quoted gives a total of 10,811 surgical operations performed during one year in the charities of a city containing less than 600,000 inhabitants. After making allowance for patients who come into these institutions from outside the city area, and applying these figures to the 45,000,000 inhabitants of this country, we shall find that not less than 600,000 operations were philanthropically performed last year in the United Kingdom. I desire to call the attention of the author of *The Doctor's Dilemma*, and of all others who appear to be unaware of it, to the fact that this enormous mass of work has been almost gratuitously done, and the bulk of it by men whose reputations are already made. 600,000 does not look much on paper in this age of millions, and may not strike the lay mind as it will the doctor's, but the figure represents a vast expenditure of energy and effort, of strain and anxiety, of time and of self-sacrifice on the part of the men by whose labour and skill this mass of work has been carried out, and the only public recognition of which are votes of thanks for past services, sandwiched in between those to the lady visitors and the chairmen for presiding, passed drearily but unanimously at the tail-ends of thinly attended and spiritless annual meetings of subscribers. Judging by present appearances, this remarkable increase of operations will still go on, and the demands made on the services of hospital surgeons will become greater than ever. How it will end is not difficult to see; the time must arrive when the bulk, if not all, of this operative work ceases to be dealt with by voluntary effort, and men will have to be paid to do the surgical work of the 35 millions of people in this country who at the present time pay practically nothing for the surgical attention they need, and must either provide for themselves or have provided for them.

This is not an occasion for discussing the Insurance Bill, but it may not be out of place for me to refer to an omission from that measure of the greatest importance to the 15 millions of the public who are to be affected by it. I refer to the absence from its clauses of any provision for the active surgical treatment which will be necessarily required by this great body of people. This absence of provision for the treatment of their surgical troubles may be of greater practical consequence, I think, than would have been the absence of provisions for their purely medical ailments; for when a person of this class needs the aid of a surgeon as a rule he needs it badly, and there are only limited sources from which such needs can be satisfied. The necessity for the institutional treatment of many surgical conditions in the working classes will always exist, and provision should be made by the working people themselves or by the State to meet this inevitable demand; for to leave such a matter to the capricious promptings and casual extravagances of voluntary and irresponsible effort is not sound statesmanship as I understand the term.

THE COST OF HOSPITALS.

A matter demanding serious attention is that of the increasing cost of modern hospitals. Their capital outlay on construction and equipment is becoming appalling, and their maintenance charges are correspondingly high. A general feeling exists, I am aware, that as our knowledge advances and our means of dealing with diseases grow greater, so must the cost go up. To some extent this may be true, but it does not cover the whole position. Much of this greater expenditure is due to the tendency seen on every side for public bodies to reckless extravagance. This craving for the lavish spending of other people's money has become a disease, and institutions will at some future time have to be erected for the treatment of persons so afflicted. There is absolutely no need for the spending of large sums of money on the construction of public hospitals; there is no necessity for the sick people in their wards to cost as much as they do. I claim to speak with some authority, if only for the reason that I have worked in charitably maintained hospitals, and in a rate-supported hospital, during the greater part of my life. The object for which all such institutions exist is identically the same—namely, the conversion of sick into sound humanity. The raw material taken into these institutions is alike, the treatment the same, the results identical, but the difference in cost is phenomenal. A charitable hospital now costs from £500 to £800 per bed for construction and equipment, and from 30*s.* to £2 a week per patient for maintenance. The Birmingham Poor-law Infirmary cost less than £90 per bed, and the patients in it 14*s.* 6*d.* per week to maintain. How are these striking differences to be explained? Certainly not by any difference in the quality or the quantity of the work turned out, which are the criteria by which the work of every hospital should be judged, nor by the greater internal comfort of one class of institution over the other. The fact of one being a teaching institution and the other not accounts for something doubtless, but the difference—easy to find—depends on other things than that, but this is not the place to discuss them. I merely wish to call attention to their existence, and to express my own opinion that the sooner all public hospitals become municipally or State supported the better for everybody in any way concerned with them—patients, doctors, and the public alike. Medical teaching and medical research might be better done in institutions altogether controlled by more responsible authority.

We cannot all be leaders in our art, but each can strive to be as the great masters of surgery were in the past. Sir William Bowman, your surgical orator in 1866, who received his general and medical education here, has eloquently said of his predecessors: They were anatomists, they were physiologists, they were pathologists, not by second-hand learning from the tongues and pens of other men, though this they did not despise, but by truth-loving interrogation of Nature herself in all her haunts of health and disease; admitting no veils of limitation to be drawn by fashion or caprice or selfish interest between provinces and things essentially akin, but taking in the whole scope of their art as one great and ample field of noble study and of beneficent activity—one by the unity of Man's body, to which it yields a voluntary and loving service; one by the identity of the methods of research by which the secrets of that body are to be disclosed; one by the common aim and intention of all treatment, internal or external, remedial or preventive; one, lastly, by the simplicity of the moral attitude which should stamp us all as members of one body in our relations towards one another, to individual patients, and to the community among which we labour.

PRESENTATION TO A MEDICAL PRACTITIONER.—Dr. Leslie H. Jones, who has for 23 years practised in Cheetham Hill and in Manchester, has recently determined to retire in consequence of advancing age. At a small representative meeting on July 7th, presided over by the Rev. R. Catterall, rector of Middleton, and held at Tunstead, Crumpsall, at the house of Mr. W. H. S. Craven, an inscribed silver cup, together with a cheque for £775, was presented to Dr. Jones by Mr. Frederick Taylor of Broughton Park. Dr. Jones expressed his thanks to his friends in a very feeling manner. It is extremely pleasant to be able to record such occurrences.

NOTES ON THE EXTRACTION OF CATARACT.[1]

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THE routine operation for the extraction of cataract has not yet been generally agreed upon, and adherents of one or other of the well-recognised methods still claim the superiority of their own choice above all others. The discussion of the subject is rendered difficult to some extent by the paucity of statistics as to ultimate results in long series of cases, and in this connexion it will probably be a disappointment to many that a record of 200 or 300 consecutive cases is not forthcoming even from the vast number operated on by Lieutenant-Colonel H. Smith, who states that he has extracted over 20,000. It is, however, well known that the difficulty of obtaining statistics in India is extremely great, owing to the impossibility of tracing old patients.

The operation for the extraction of the cataractous lens in its capsule as performed by Lieutenant-Colonel Smith has aroused such widespread interest, and the publication of his book will probably lead so many ophthalmic surgeons to try his operation, and so many patients to inquire about it, that it may not be out of place to review the various methods of operation now commonly practised, to attempt to appraise their individual merits or demerits, and finally, to hazard an opinion as to whether the older operations for the extraction of cataract have been found wanting.

It is the opinion of the writer that no single operation is equally suitable for all cases, but that various features, all of which may have an important bearing on the choice of operation, have to be considered. The possible complications and sequelæ of the various operations have to be kept in mind, together with the reasons for which the operation was undertaken; and last, but by no means least, the character of the cataract itself. It has long been recognised that success does not follow equally all operations for the extraction of cataract, however uniformly and skilfully they have been performed; and as the ultimate result of an extraction will depend upon the presence or absence of various important sequelæ, it will be probably more profitable to consider these first, and the various methods of operation later.

Complications following the Extraction of Cataract.

1. *Adhesions of the lens capsule to the extraction scar.*—Mr. Treacher Collins has shown that the irido-cyclitis, sympathetic ophthalmia, and glaucoma which may follow an operation for extraction are often due to the entanglement of the lens capsule in the wound or adhesion to the posterior surface of the cornea. The entangled capsule acts as a foreign body and produces the same inflammation that would follow the implantation of an eyelash or a fibre of cotton-wool. It may also cause inflammation by dragging on the ciliary processes, or glaucoma by dragging the iris forward and narrowing the anterior chamber.

2. *Capsular opacities.*—It is generally agreed that from 30 to 50 per cent. of all cataract operations require a subsequent needling for capsular opacity. Mr. Higgens, in his series of 130 consecutive cataract extractions, notes that he needled 57 out of the 130, some of them more than once, and this may be taken as a fair example of ordinary practice. As a rule the presence of opaque lens matter between the two layers of the lens capsule does not seem to cause any irritation, but a needling operation should be unnecessary in the ideal operation, and if it can be avoided so much the better. It is, of course, well known that the presence of any considerable amount of soft material left behind in the anterior chamber after extraction of the lens occasionally causes iritis, and a very dense fibrous opacity may result. Cases of glaucoma after needling are usually due to previous adhesions of the lens capsule in the wound. The operation of needling has also the disadvantage of breaking down the separation between the aqueous and vitreous. The latter becomes more fluid, and any subsequent operation on the eye is rendered much more hazardous.

3. *Loss of vitreous.*—Loss of vitreous during an operation for extraction, provided that the amount lost is not excessive and that septic infection is avoided, does not seem prejudicial to the ultimate visual results. It is also generally agreed that the effects, if any, are less pronounced when the vitreous is diseased or abnormally fluid than when it is sound.

In the appendix by Captain Lister to Lieutenant-Colonel Smith's book an account is given of a research into 90 cases where loss of vitreous occurred during the operation for extraction of the lens in its capsule. The average length of time which had elapsed since the operation was over three years. No detachment of the retina had occurred in any case, and a large majority of the cases had 6/6 vision or better. A very similar result was obtained last year as the result of a research into some cases under my care at Guy's Hospital in which vitreous had been lost. No untoward results were observed even though several years had elapsed since the operation had been performed. The vitreous, however, is a more stable and satisfactory medium than the aqueous, and if equal visual acuity can be obtained without loss of vitreous it is much more satisfactory. In this connexion it is of interest to note that vitreous was not lost in a single case of Mr. Higgens's sequence of 130.

4. *Prolapse of the iris.*—This occasionally occurs after extraction without iridectomy, most often in those cases in which the nucleus of the lens was small and there was considerable soft material, some of which was left behind the upper part of the iris. The swelling of soft matter due to absorption of the aqueous appears to be a considerable factor in the causation of prolapse. Mr. Higgens found it necessary to remove a prolapse in five cases out of 83 operations without iridectomy, and iridectomy at a later date was required in two more. He states, however, that he leaves small prolapses alone, and it is also the writer's experience that these, provided they do not cause too much eccentricity of the pupil, are best left untouched, and that they do not cause any subsequent inflammation. A large conjunctival flap made at the time of the corneal section is very useful in preventing subsequent prolapse of the iris, as the rapid healing of the conjunctiva prevents any gaping of the cornea and escape of aqueous.

Variations in the Structure of the Cataract.

As has been said above, all mature cataracts are not similar in structure, and it is a great advantage to be able to tell from the appearance of a cataract before operating if it is likely to have a large or a small nucleus, and if consequently there will be little or much cortical soft material. It is well known that amber-coloured cataracts, which in extreme cases are called "black" cataracts, are not really cataracts in the ordinary sense of the word, but are due to a general sclerosis of the lens with no differentiation between cortex and nucleus. They seldom become completely opaque, and never appear white in the pupil, but rather dark grey or brown, and on ophthalmoscopic examination show little definite opacity. As a result the vision never diminishes to bare perception and projection of light, though it may become too deficient for reading and writing. Experience shows that these lenses always shell out extremely easily from the capsule, even when apparently quite immature, and leave little or no soft material behind. The same characteristics may be noticed in those nuclear cataracts which appear whitish, opaque, and almost foamy in the centre, resembling in some degree ice containing small air-bubbles.

Mr. Higgens notes that cataracts with milky or pearly nuclei and striæ scattered plentifully in the cortex, much of which may remain transparent, come away easily, and though immature do not need iridectomy. On the other hand, cataracts which are entirely opaque and very white, though not necessarily hypermature, often consist of a very small nucleus and a large amount of soft material, and Mr. Higgens also notes that in all cases where there is a yellowish nucleus and a cloudy cortex without any definite striæ, that kind of opacity which always appears to be facing one whichever way the eye is looked into, which is ill-defined, and

[1] The writer has referred in this article to the following publications, which should be read by all who are interested in the subject:—The Treatment of Cataract, by Lieutenant-Colonel Henry Smith, I.M.S., Calcutta: Thacker, Spink and Co., 1910. Lieutenant Colonel Smith's Operations in Bombay, by P. P. Kilkelly, M.B., Major, I.M.S., Indian Medical Gazette, May, 1910. Notes on 130 Consecutive Extractions of Cataract without a Failure, by Charles Higgens, F.R.C.S., THE LANCET, April 13th, 1907. Capsular Complications after Cataract Extraction, by E. Treacher Collins, F.R.C.S., Royal London Ophthalmic Hospital Reports, vol. xvi., part iii.

surrounded by a more or less distinct red reflex, the cortex is always sticky and difficult to get away.

With the above considerations in mind it is easier to review the various operations for the extraction of cataract.

Operations for the Extraction of Cataract.

1. *Simple extraction without iridectomy.*—If this operation is successful it is far and away the best both from the point of view of appearance and of visual efficiency. The central mobile circular pupil matches that of the other eye, and after the lapse of a week or two it takes an expert to discover which eye has been operated on. It is of special advantage for those who have prominent eyes, and in whom the upper lid does not cover the upper part of the iris, and as a result an iridectomy would be very apparent. It is the operation to be performed where the extraction is undertaken for the sake of appearances, whether from a social point of view or from the economic necessity of a wage-earner to avoid the disability incurred by the presence of a unilateral cataract, or of an obvious iridectomy. It is also my experience that patients having had both eyes operated on, one with iridectomy and the other without, find that eye most useful which has the complete circular pupil even though the visual acuity of the two as tested by Snellen's types may be equal.

The absence of glare in bright lights and the better definition obtained by the smaller pupillary aperture make the eye more efficient for all purposes and under all conditions. It is extremely rare to get any involvement of the capsule in the wound after the operation, as the iris draws all tags of capsule back to the centre and away from the corneal section, and for the same reason loss of vitreous is less likely to occur than when iridectomy has been performed. A further advantage of the simple extraction is that it requires the minimum interference with the eye, and can be done with the fewest instruments.

Having learnt the technique of the operation from Mr. Higgens, the writer follows his methods as described in his paper. No speculum is required, and the necessary fixation can be obtained by passing a stitch through the conjunctiva below the cornea and getting an assistant to hold it down on the cheek. If the knife is properly sharp it may be passed through the anterior chamber from side to side without moving the eye; no forceps are required for fixation and the eye can be steadied on the edge of the knife while the section is being made. The lens is expressed by the two thumbs, one operating upon the lower part of the globe through the lid and the other making counter-pressure on the upper part of the globe. The iris usually returns at once, but if necessary can be replaced with a repositor. Should it show any tendency to prolapse an iridectomy can be done subsequently to the extraction instead of before. Thus the only instruments really required in many cases are a Graefe's knife and a capsule hook, and the latter *can* be dispensed with if the capsule is opened with the point of the knife as it passes through the anterior chamber, a manœuvre I first saw performed by Mr. Stanford Morton at the Royal London Ophthalmic Hospital.

The only disadvantages of this operation are, the comparative difficulty of removing soft material which may get up under the upper margin of the iris, the danger of prolapse and the subsequent formation of a web. But these sequelæ may be avoided by selecting for the operation only those cases of cataract mentioned above, which have very little soft material and a large nucleus.

2. *Extraction with iridectomy.*—The iridectomy may be performed either as a preliminary operation or at the same time as the extraction. The former course has the advantage of giving the operator some idea of the behaviour of his patient before he attempts the more serious task of removing the lens but it has the disadvantage that the iridectomy wound cannot be subsequently anæsthetised with cocaine, and the corneal section at the second operation may be painful. It is more usual therefore to perform the iridectomy at the same time as the extraction.

The advantages of iridectomy are that the soft material is more easily evacuated than in the simple extraction without iridectomy, and that there is no danger of a subsequent prolapse of the iris.

The disadvantages are that prolapse of vitreous is more likely to occur during the operation, and that the lens capsule, unless carefully replaced, may become incarcerated in the wound. In order to obviate this complication Mr. Treacher Collins devised his method of removing the anterior lens capsule with forceps instead of tearing it with the sharp hook. He says:—

> As a result of his experience the writer thinks it best after a small iridectomy has been performed to introduce the capsule forceps closed, to a position opposite the centre of the lens, then to allow the blades to separate to an appropriate extent, and while separate, to depress them slightly backwards so that their teeth penetrate the capsule. At the forceps being again closed the capsule can often be seen to ruck up on the surface of the lens and a slight, lateral, side to side movement should then be made before withdrawing them from the eye. This lateral, side to side movement serves to detach the anterior capsule and to prevent the withdrawal of the lens in its capsule, which may occur if a pull outwards is at once made.

The advantage of this procedure is not only that no anterior capsule is left to become entangled in the wound, but also that the aqueous obtains free access to any soft material that may be left behind, and a web is much less frequent than in cases where the capsule has been merely lacerated.

Mr. Treacher Collins notes that of 200 cases operated on by him in this manner subsequent records of 145 were obtained, and that 51, or 25 per cent., obtained 6/6, or 6/6 partly, without needling. This percentage of normal vision with one operation is certainly much higher than that recorded by any other method of extraction, excluding Smith's operation. It must be remembered, however, that needling may be ultimately required, even though the anterior lens capsule has been removed, not by reason of the existence of an opaque web, but because the posterior capsule may, though transparent, become wrinkled and prevent the formation of a well-defined image. After an iridectomy the pupillary aperture is large, and though the upward iridectomy is hidden by the upper lid, there is no doubt that patients suffer considerably from glare in bright lights.

3. *Extraction of the lens in the capsule.*—The operation for the extraction of the cataractous lens in its capsule has in recent years received such powerful advocacy from Lieutenant-Colonel Smith of Jullundur, and he has made such important modifications in its technique that it now goes by his name, though of course it has been frequently performed previously, both intentionally and unintentionally. Space will not permit here of giving a detailed description of the operation, but everyone who is interested in ophthalmic surgery should read his book, which is amply illustrated, and in which the *pros* and *cons* of the various operations for cataract are dealt with at great length.

Briefly it may be stated that in Smith's operation, after an iridectomy, the lens is expressed bodily in its capsule. The rupture of the suspensory ligament is accomplished by pressure with a blunt hook on the lower part of the cornea, the lens in its capsule dislocating first in the wound. Escape of vitreous from the gaping of the wound is obviated as far as possible by making the patient look up instead of down during the expression of the lens, the upper eyelid being lifted from the globe by a hook.

The advantages claimed for this operation are that it is quite as safe as the ordinary method of extraction, and that all subsequent operations for after-cataract and all capsular complications are avoided by the bodily removal of the lens capsule, and that escape of vitreous, which, it is generally agreed, is not infrequent, has no detrimental effect upon the subsequent vision.

The operation is recommended by Lieutenant-Colonel Smith both for mature and immature cataract, but in his advocacy for its adoption for immature cataract he dismisses all methods of artificially ripening the unripe lens with very brief consideration. In discussing trituration, or iridectomy with massage through the cornea, he says: "In my observation it has no influence on the immature cataract if the massage be done with a justifiable degree of pressure, that is pressure which will not dislocate the lens." With this statement the writer must entirely disagree. He is constantly triturating lenses in hospital practice and can assert that it is a matter of common experience that trituration of the lens through the cornea usually produces complete opacity of the lens in from three to four weeks. The writer has never dislocated the lens, and vitreous has never been lost at the subsequent extraction.

Trituration has also the advantage that the soft cortical material which is found at the extraction is never sticky and can be easily and completely expressed with the nucleus by gentle pressure on the cornea. Subsequent capsular opacities are infrequent. The only objection which has been

raised against trituration is that in unscrupulous hands it may lead to malpractice, as at the preliminary operation it is very easy to give a patient a cataract even if one was not present beforehand.

Immature cataracts can also be extracted with safety after removal of the anterior lens capsule with forceps by the method adopted by Mr. Treacher Collins. The aqueous has free access to the lens material left behind, and it is soon absorbed.

It wants to be thoroughly understood, therefore, by all those who are suffering from immature cataract that it is not necessary in these days to wait until a slowly growing cataract matures, whether an extraction of the capsule or an ordinary extraction is proposed. The sole criterion is the amount of vision and its importance to the patient. Directly vision has failed in both eyes so that the patient cannot read or write with comfort an extraction can be undertaken with safety.

In dealing with mature cataract also Lieutenant-Colonel Smith is an ardent advocate of his method as the best operation for senile cataract under all conditions, and he certainly has had a vast experience, and ought to speak with authority. Some Indian ophthalmic surgeons, however, who have had some opportunity of seeing more of his work than oculists at home, are not in agreement with him, notably Major Kilkelly of Bombay. At Major Kilkelly's invitation, Lieutenant-Colonel Smith performed 23 cataract operations at the Sir Cowasjee Jehangir Hospital, Bombay, in February, 1909. The results of these operations are detailed in the *Indian Medical Gazette* for May, 1910, and show that of the 23 cases incarceration of the iris occurred in 5, capsule tags in the wound in 4, vitreous opacity in 9, and iritis in 7. The visual results cannot compare with those obtained by Mr. Higgens or Mr. Treacher Collins, and Major Kilkelly himself says that he has performed some 600 extractions of the capsule, but that he has given up the operation as a routine procedure, being convinced that the best interests of the patient would not be considered if it were done, except in very exceptional cases. Major Kilkelly remarks with reference to Lieutenant-Colonel Smith's series that for the extraction of the lens in the capsule it seemed in some of the cases at least that the pressure necessary was excessive. Many lenses shelled out with the utmost ease; in others it was only the undoubted determination of the operator which brought about the desired result and caused a rupture of the capsule or escape of vitreous.

In the same number of the *Indian Medical Gazette* there is also an article on Smith's operation which reviews a number of publications dealing with the operation, and the opinions of the various writers appear to be divided, several being still unconvinced of the safety of the operation.

Ultimate Vision.

It may be of interest to survey the ultimate visual results as recorded in the papers which have been mentioned in this article. Out of 115 cases of Mr. Higgens's 130 who were not precluded from good vision by previous iritis, choroiditis, or other diseased conditions, 8 obtained 6/6; 33, 6/9; 39, 6/12; 24, 6/18; 7, 6/24; 3, 6/30; none, 6/60; and 1 < 6/60.

Mr. Treacher Collins gives no particulars as to the vision of all his cases, but notes that 25 per cent. got 6/6 without needling.

As has been said above, Lieutenant-Colonel Smith gives no statistics as to vision in any series of his own cases, but Captain Lister gives the visual results of 61 cases of loss of vitreous: 6/3 in 4, 6/3·5 in 6, 6/4 in 4, 6/4·5 in 5, 6/5 in 4, 6/6 in 33, 6/8 in 2, 6/9 in 3. Captain Lister makes the note that in India, owing, he thinks, to the better light and clearer atmosphere, patients who come to him for examination usually read a line or two more of Snellen's test types than they do in England. He finds that very many British soldiers read 6/3·5 quite easily.

On the other hand, the visual results of the 23 cases operated on by Lieutenant-Colonel Smith for Major Kilkelly in Bombay show a very different result. One case only got 6/15; 2, 6/20; 7, 6/30; 3, 6/40; 4, 6/60; and 6 less than 6/60. It will be seen, therefore, that even though by Smith's operation some extremely good results may be obtained one may also get some very poor ones.

It appears, therefore, that the extraction of the lens in its capsule is not yet being universally adopted as a routine operation for the extraction of cataract, and that it has been tried and rejected by many skilful operators as being too risky, and in view of the other facts quoted here it cannot be said that the results of extraction of cataract performed in the old way are unsatisfactory. It is the writer's own experience that nearly every ophthalmic surgeon of his acquaintance to whom he has put the question has replied that if he were going to have an extraction performed on himself he would not select extraction in the capsule, but would be content with the ordinary extraction, with or without iridectomy.

It has been the writer's object in this article to show that in his opinion no single operation can be adopted for all cases as a matter of routine. In selected cases a simple extraction without iridectomy is undoubtedly the best. In cases where there is likely to be much soft material removal of the anterior lens capsule with forceps will give extraordinarily good results, and it is evident that in skilled hands the older methods of extraction of cataract are quite as efficient as, and probably safer than, extraction in the capsule. Time alone will show whether the latter operation will be generally adopted or whether its success depends alone on the peculiar dexterity of Lieutenant-Colonel Smith himself.

Queen Anne-street, W.

THE APPENDIX, ITS RELATION TO THE CAUSATION AND SURGICAL TREATMENT OF AFFECTIONS OF THE ADNEXA.[1]

BY H. MACNAUGHTON JONES, M.D., M.CH., M.A.O. Q.U.I., F.R.C.S. IREL. & EDIN.

THE object here is briefly to review, alike from the pathological, clinical, and operative standpoints, the influence which our present knowledge exerts on the diagnosis and operative treatment of appendical complications in affections of the female genitalia. The importance of the subject is illustrated by such cases, amongst others, as the following:—In a child, aged 10, an appendical abscess with the appendix found adherent to the pelvic floor; in a child, aged 11, the inflamed and diseased appendix adherent to the ovary; pyosalpinx with a long appendix adherent to a diverticulum of the bowel at the left side; an adnexal lesion in which the rudimentary appendix, reduced to a thin cord, was constricting the bowel; a case in which the cystic ovary, tube, and appendix, with concretions, were matted together; a retrocæcal abscess with slough of the appendix (only discovered post mortem) following curettage and resection of cystic ovaries, performed for menorrhagia and dysmenorrhœa associated with endometritis, without any history or suspicion of appendicitis; some cases in which subsequent appendectomies had to be performed after cœliotomy for adnexal disease.

There is the interesting question of the course of the inflammation from ovary to appendix, or *vice versâ*. The "appendiculo-ovarian" ligament, first described by Clado, is by some authorities (as, for example, Treub, Dutilh, Olshausen, Krönig, and Döderlein) accepted as the track by which the infection travels. This ligament (springing from the "infundibulo-pelvic ligament"), according to these and other gynæcologists, contains nerves, vessels, and lymphatics. Parametritic disease may extend along it to the cellular tissue between the mesentery of the cæcum and the iliac mesentery of the appendix, or in the opposite direction, the primary condition (according to Krönig) being a chronic adhesive appendicitis. This leads to suppurative processes which extend along the lymph tracts, or there may be a direct rupture from the one structure into the other. Hartmann (Paris), who has discussed this question exhaustively, believes, on the other hand, that this ligament is simply a fold of peritoneum passing behind the meso-ovarian and does not form any vascular or lymphatic link between the ovary and appendix. He (Professor Hartmann), with others, accounts for the spread of the inflammation either by direct contact of the diseased structures one with the other

[1] Abstract of a valedictory address to the Obstetrical and Gynæcological Section of the Royal Society of Medicine.

or by the serous peritoneum. As the result of inquiries for the purpose of this paper made from ten of the university anatomists of the United Kingdom, one arrives at the conclusion that British opinions vary as to the presence and nature of this structure. It does not appear to be always present; it may be a peritoneal fold not containing any lymph vessels; it is distinct from the appendiculo-pelvic ligament. Professor A. M. Paterson (Liverpool University) has made for me a recent drawing from a subject in which the infundibulo-pelvic ligament is clearly seen, and which, he says, contains the ovarian vessels, nerves, and lymphatics, and is constantly present, extending from the pelvic brim to the outer end of the Fallopian tube. It would thus appear that there are different routes by which the inflammation may travel, and that it often may be the result of direct contact. There may also be (as demonstrated by Crossen) adhesions between the appendix and cæcum, and through exceptional mobility of the cæcum, the consequent infiltration, simulating an intro-cæcal growth, may drop down into the tubo-ovarian region. He has had two such cases.

As to the important question of the relative frequency of appendical complications in adnexal disease, statistics vary, partly because some follow the vaginal route in operations, and hence do not examine the appendix, and, secondly, because the pathological conditions present in the appendix (Krönig) escape notice when it is not removed. Krönig says that a right-sided pyosalpinx in a young patient in whom there is neither clinical nor bacteriological evidence of tuberculosis or gonorrhœa, is almost certainly due to infection of the tube from a primary appendicitis. Abscesses in Douglas's pouch are often due to the same cause. From the statistics (quoted) of a very large number of laparotomies performed on women for adnexal disease, we may conclude that on a moderate calculation some 12 per cent. have appendical complications. Some authorities, as, for instance, Krönig, Peterson, and Hermes, put it at 50 per cent. Howard Kelly, in his recent "Medical Gynæcology," says that in the ten years previous to 1904 he removed the appendix in 240 cases, the majority of which were combined gynæcological and appendical affections. He comments on the predisposing influence of torsion of an ovarian cystoma, the greater frequency of appendical involvement in ectopic gestation, and its rarity in myomata. On the line of practice pursued by continental and American, as well as some British gynæcological surgeons, I have had definite answers to these two queries from all to whom I have written: "Do you examine the appendix in every case of cœliotomy?" "Do you always remove it, and if not under what conditions do you do so?" These authorities include Howard Kelly, E. Montgomery, Polk, J. B. Murphy, Boldt, William Mayo in America; Lapthorne Smith in Canada; P. Zweifel, Zurhelle (for Professor Fritsch), Bumm, Schötlander, Wertheim, Döderlein, Schauta, Schultze, Dmitri de Ott, Mangiagalli, Jacobs, Hartmann, and Pozzi on the Continent. At home I have ascertained such representative views as those of Dr. E. H. Tweedy, Dr. H. Jellett, Dr. F. W. Kidd, Dr. J. Campbell, Sir Halliday Croom, Dr. J. M. Munro Kerr, Mr. Christopher Martin, and Dr. Murray (Liverpool). The unanimous opinion of all is that the appendix should be examined in any cœliotomy for adnexal disease. Krönig and Montgomery remove the appendix whether it be diseased or not, Kelly and Boldt in nearly all instances; Lapthorne Smith inclines to the same course, also Schultze, unless there be some special contra-indication. All the others named remove it only when there is evidence of adhesion or some morbid condition, or unusual length.

[Dr. Macnaughton Jones here dealt with diagnosis, discussing the relative value of McBurney's and Lanzs's points, the classical clinical signs of appendicitis as compared with salpingitis, Olshausen's diagnostic distinction, and the pathological evidences which point to the original source of the inflammation, as also the necessity for the bimanual and recto-vaginal method under anæsthesia. He continued:—]

Several authorities, since MacLaren drew special attention to the causal relationships between appendicitis and dysmenorrhœa, have pointed out the correlation which exists between the two, notably Soupault and Jouaust. Here, again, the presence of the more characteristic signs of appendicitis, such as gastro-intestinal symptoms or muco-colitis, and the localised character of the pain together with elevation of temperature in the rectum as compared with that in the axilla, and abdominal rigidity, will materially assist us in coming to a conclusion.

As to the method of operation, the abdominal route in these ambiguous cases appears decidedly preferable to the vaginal, and also the median incision. If, however, the abscess be localised in Douglas's pouch, a posterior colpotomy for many reasons is the best method of attack.

On the entire consideration of the subject I think it is clear that the appendix should be examined in every case of cœliotomy for adnexal disease. This equally applies to the left adnexa as to the right. When the abdomen is opened for a grave appendical trouble the adnexa should be examined. The appendix should be removed in every instance where any abnormality or disease is found or if it be of unusual length, also if from the character of the operation there is a probability of further adhesions forming which may involve the appendix. The severity of the operation, however, will always have to be taken into account, and the influence its prolongation may have in lessening the chances of the patient's recovery.

Harley-street, W.

RUBELLA OR MEASLES?

BY DONALD W. C. HOOD, C.V.O., M.D. CANTAB., F.R.C.P. LOND.,
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THE following case presents some points of interest to those who share with the writer the belief that rubella is probably but a variety of measles.

A young married woman, aged 27 years, who had never suffered from any form of measles, on Monday, Jan. 23rd, felt poorly, with headache and general aching pains, the temperature being 102° F. She remained in much the same state, and the temperature continued to be raised until I saw her on Thursday afternoon, Jan. 26th, the only symptoms of illness then being a temperature of 102°, a general feeling of malaise, and a slight but persistent headache. The following morning I found practically the same condition, which remained without further symptoms until Sunday, Jan. 29th, when on waking in the morning a rash was found on the face and neck. The eyes were suffused, there were a dry irritable cough and a characteristic rash of measles, with a temperature of 102·4°. During the next 24 hours the rash had much increased, and on the morning of Monday, the 30th, the face was swollen and contorted with a confluent eruption, which had by this time invaded the arms, chest, and abdomen. There was also much rash on both hard and soft palate. No Koplik's spots were present. One small painful gland on the mastoid could be felt. The cough was constant but the temperature had fallen to normal and remained so during the entire eruptive period of four days. The rash invaded all parts of the body and was typical of measles. From first to last, with exception of the irritable cough and injection of conjunctivæ, there was no sign of coryza or catarrh.

I believe that anyone with experience of all kinds and sorts of measles would have found it difficult to place this case in the appropriate class. Within the past few months there have been a large number of cases of measles, not only in the London area but throughout England, and I understand that in many instances the type is atypical. I have been informed by four experienced practitioners that they have been attending patients with whom they have found it impossible to differentiate between so-called rubella and measles.

In the Epidemiological Section of the Royal Society of Medicine the subject of rubella was discussed in February, 1908, and one of the speakers referred to a little pamphlet of mine on the etiology of rötheln, in which he stated that I had expressed the view that rubella is an "attenuated form of measles." Never for one moment have I held such an opinion. I consider that rubella and its congeners are varieties of measles, and, far from being always of an attenuated form, may occur with extreme severity. Those who describe rubella as being of a mild character must surely forget the description of a small epidemic alluded to by the late Dr. Cheadle in a paper read before the International

Congress of Medicine held in London in 1881. This epidemic, considered by me at the time to be caused by very severe measles, was regarded by Dr. Cheadle as due to rubella, and he formed this opinion mainly from the fact that in a large number of instances those who suffered from the attack had previously suffered from ordinary measles. Such an argument in favour of specific difference is of little value or weight, as we know that it is quite common for individuals to have two or more attacks of ordinary measles. Although we may assume that an attenuated virus may produce an atypical clinical condition, with very marked variation or even suppression of symptoms, it has to be considered on an entirely different footing to a virus that has undergone variation and given rise to an illness atypical to the parent or ordinary form of the disease. Such a variation may tend to increase of virulence and symptoms may so assume a more intense form. I have seen a nearly white sparrow hopping about in the roadway. This bird can scarcely be called an attenuated sparrow, but it undoubtedly does show some variation from the ordinary type. Some of those who read these lines may love our wild flowers, and they may have been puzzled when first seeing Butcher's broom, that curious shrubby plant with the prickly pseudo-leaves and berries so suggestive of our common holly. One would hardly associate it with the gentle, delicate lily of the valley, and yet it is one of its sisters, and we must classify it as a lily.

Under the genus measles would I class rubella, coming before us, as it undoubtedly does, under many a form and aspect, and until the bacteriologist supplies us with more definite information I shall believe that the balance of clinical evidence is in favour of "German measles" being only a variety of the common type.

Green-street, W.

A SUCCESSFUL CASE OF OVARIOTOMY AND CÆSAREAN SECTION PERFORMED ON THE SAME SUBJECT AT ONE SITTING.

BY H. B. MYLVAGANAM, F.R.C.S. ENG.,
SURGEON TO VICTORIA HOSPITAL, BANGALORE.

IT is not often that an opportunity presents itself of carrying out two major operations on the same subject at the same time, and the successful performance of the operations which I here describe illustrates forcibly the physical endurance of Indian women, who lead a simple life. The notes of the following case will perhaps be of some interest, and the rarity of the position is my plea for publishing them.

On August 9th, 1910, a Hindu female, aged 30 years, was admitted into Victoria Hospital, Bangalore, with an enormously distended abdomen. The history of the case showed that the patient had menstruated at the age of 14 years and had had no menstrual troubles. She had not menstruated for the past eight months. She was married and had borne two children. She had felt sensations in the abdomen resembling fœtal movements. She had never had any abortions. She had noticed that for the past few years the abdomen was becoming larger, for which she had been tapped at the Mysore Civil Hospital four times and fluid had been drawn out.

Upon admission the patient was found to be much emaciated and anæmic. Marks of old tappings were visible over the linea alba between the umbilicus and pubes. The abdomen was enormously distended, so much so that she was unable to lie down comfortably, but sat up in a semi-recumbent position the whole time. The abdominal wall was much thinned out. There was dulness over the front of the swelling, as well as resonance in the flanks. A distinct fluid thrill was felt over the swelling on palpating its upper portion, but a hard lump was felt on the left side between the umbilicus and the left Poupart's ligament Owing to the tension of the abdomen the nature of this hard lump and its relation to the cystic swelling could not be made out. The breasts were flaccid, the areolæ were slightly pigmented, and a thin serum exuded on squeezing the nipples. The cervix was softened, and the os uteri was dilated to the extent of admitting the tip of a finger. There was no history of morning sickness. No œdema of the lower extremities was present. The urine was normal.

The case was diagnosed as one of ovarian cyst complicated with pregnancy, but the duration of the latter was not certain, as the uterus could not be clearly defined abdominally.

On August 13th abdominal section was performed, and a large thin-walled cyst containing smaller cysts was found occupying the upper part of the abdomen, reaching from the ensiform cartilage as far as the umbilicus, and an enlarged uterus was lying below it, with the fundus directed to the left. The appearance of these two swellings was characteristic. The cyst was pearly white and the uterine swelling was of a reddish colour. The cyst, which involved the right ovary, was tapped and removed. Owing to the advanced state of the pregnancy, it was thought advisable to perform Cæsarean section for the following reasons: (1) In case the mother had a premature delivery in consequence of the operation, an abdominal wound would be inconvenient for the expression of the placenta, &c.; (2) in the event of peritonitis or any other accident to the mother incidental to an abdominal section, the safety of the fœtus would be endangered; and (3) because a viable fœtus was likely to be delivered. The uterus was therefore divided in the middle and a viable female fœtus, about 8 months old, was removed. The uterus was sutured up by double layers of suture, the first layer passing through the peritoneal and muscular coats without entering the cavity, and the second row through the peritoneal coats only.

The patient made an uneventful recovery in spite of the double operation, which occupied about 1 hour and 25 minutes, and mother and child were discharged from hospital in one month after the operation.

Bangalore.

A FATAL CASE OF ACUTE MERCURIAL POISONING.

BY A. W. BURTON, M.B., CH.B. EDIN., L.M. DUB.,
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THE patient, a single woman aged 26 years, was admitted into the Bristol General Hospital on August 21st, 1910, under the care of Dr. Carey Coombs, who was at that time in charge of Dr. J. Odery Symes's beds.

At about 1 P.M., shortly after a meal, the woman, who had previously attempted suicide, swallowed 44 grains of corrosive sublimate in the form of soluble tablets. She was seen about an hour later and presented a cyanosed appearance, with cold clammy hands and face. Vomiting began almost immediately after she was seen. The vomitus, which at first closely resembled the white of an egg, soon became bluish in colour, the solid constituents of the vomit being stained blue as well as the fluid part. This was due to pigment present in the poison swallowed. About 15 minutes after the onset of vomiting the patient was seized with severe abdominal pain, and profuse violent diarrhœa set in suddenly, the motions being greenish and very slimy. Both vomiting and diarrhœa became persistent in character. The pulse became rapid and weak, and the cyanosis was soon replaced by pallor, the patient passing into a condition of marked collapse. The abdomen was flaccid and moved very little during respiration. There was no rigidity, tenderness, or distension present. The hepatic and splenic dulness remained normal throughout. After the patient had vomited several times the vomitus became blood-stained, but no shreds of mucous membrane were seen in it. The pupils remained equal and normal in size and reacted to light.

During the following night the patient vomited blood-stained material at intervals; still no shreds of mucous membrane were seen. Abdominal pain continued to be severe and paroxysmal in character, causing her to cry out. There was marked odynphagia. The diarrhœa became less profuse, but continued. Vomiting persisted and the patient complained of a choking sensation in the throat, and at times became dyspnœic. There was complete suppression of urine and only one fluid drachm of serous blood-stained fluid was drawn off from the bladder, which showed no signs of distension. Acute vaginal pain was present, and the vulva was found to be swollen and red, slight vaginal discharge being present. Tremors were present in the limbs, but no convulsions

took place. Later the actions of the bowels became very frequent, the motions, which were small in quantity, being very offensive and containing numerous shreds of foul-smelling necrotic mucous membrane. Each motion was blood-stained. The gums became very red and the lips slightly swollen. The tongue was very red, dry, and brown-coated on its dorsum. The pharynx was red and congested, and patches of excoriation appeared on the buccal mucosa. Salivation was not a conspicuous feature. The abdomen became retracted and its movement during respiration much diminished. No urine was passed. The bladder remained undistended and the catheter was passed on several occasions without result. Diarrhœa persisted, but vomiting occurred much less frequently. Tremors were noted in the jaw and hands. The odynphagia and also the abdominal pain gradually disappeared. The abdomen became somewhat distended, moved more freely, and gurgling sensations were produced during palpation. There was slight resistance over the upper part of the abdomen, but little tenderness. No signs of perforation could be detected. The vaginitis became less marked under treatment and no sloughing occurred. The patient gradually became drowsy and ceased to complain, the tongue and lips became more inflamed, and the anuria was most persistent. The temperature was practically subnormal throughout, ranging between 95·5° and 96° F. Drowsiness gradually passed into coma, and she died on August 28th at about midday, seven days after taking the poison.

The symptoms were probably modified to a considerable extent by the adoption of prompt and appropriate treatment, which consisted in early lavage of the stomach, the administration of antidotes and stimulants, and attempts to assist elimination, together with the treatment of the various symptoms as they arose.

Post-mortem examination.—Swelling of lips and buccal mucosa. Tongue swollen. Fauces inflamed and red. A small hæmorrhagic ulcerated area on the anterior surface of the œsophagus 2½ inches from the cricoid cartilage; remainder of œsophagus free from ulceration but congested. Thymus: trace. Thyroid: slightly enlarged. Pleuræ: slender adhesions and excess of fluid on both sides; tracheitis. Lungs: hypostatic congestion in both bases; mild bronchitis. Pericardial sac: normal. Heart: slightly enlarged; heart muscle pale, friable and soft; valves, endocardium, and coronary arteries normal in appearance. Abdomen contained several ounces of blood-stained non-coagulable fluid; no adhesions; no perforation of any hollow viscus. Liver somewhat pale. Gall-bladder filled with bile; mucous membrane quite healthy. Bile-ducts and Vater's ampulla normal. Spleen not enlarged, good colour and normal consistence. Pancreas and ducts normal. Suprarenal capsules normal. Kidneys: both slightly enlarged. Relative thickness of cortex and medulla as 1: 3. Cortex pale and streaked with congested lines in all directions. Glomeruli easily seen on section. Calyces, pelves, and ureters much injected and filled with a semi-solid brownish-coloured material. The microscope revealed the presence of intense regressive changes in the renal parenchyma widespread in distribution. Bladder: mucous membrane much injected; its cavity contained some semi-solid brownish material but no urine. Uterine appendages: normal; a recently ruptured Graafian follicle in the left ovary; no sloughing in the vagina. Alimentary canal: ulceration of œsophagus as mentioned previously. Stomach normal in size and shape; mucous membrane yellowish in colour with absence of rugæ. On the greater curvature about 2 inches from the pyloric orifice a black escharotic ulcer about the same size as a half-crown. Pylorus normal. The intestines showed signs of most intense irritation. Mucous membrane of duodenum much injected; no ulcers present. Jejunum and a large part of the ileum almost normal in appearance; mucous membrane yellowish in colour and hyperæmic. Lower part of ileum, cæcum, and whole large intestine completely involved in a continuous series of escharotic ulcers of the most virulent type and greyish-black in colour.

Briefly, the case is worthy of record because a dose of 44 grains of mercuric chloride, taken in a very concentrated form, failed to prove immediately fatal. The poison was taken shortly after a full meal, and was, therefore, so far diluted that its irritant action on the digestive mucosa was not quite intense enough to prove rapidly fatal. At the same time, however, the end was only delayed until the poison, taken in a readily soluble form, quickly dissolved in the stomach, and freely absorbed into the circulation, had time to produce the evidences of general systemic mercurialism in a very intense degree. Although we were at first encouraged by the patient's temporary recovery from the stage of gastro-enteritis, it soon became clear that her system was so saturated with mercury that we had no justification in hoping for her recovery.

I am much indebted to Dr. Carey Coombs and to Dr. Symes for their help and for permission to publish the notes of the case.

Bristol.

Medical Societies.

EDINBURGH OBSTETRICAL SOCIETY.

A Contribution to the Theory of Enzygotic (Mono-chorionic) Twins.—Mongolism.—Two Rare Pelvic Tumours.

A MEETING of this society was held on July 12th, Dr. F. W. N. HAULTAIN, the President, being in the chair.

Dr. D. BERRY HART read a paper entitled, "A Contribution to the Theory of Enzygotic (Mono-chorionic) Twins." By enzygotic twins were understood twins developed from one zygote (fertilised ovum). The most striking instance of these was identical twins, where the similarity was complete, even to the finger-prints (Wilder). It was further noteworthy that all twins derived from one zygote were of the same sex. In considering the causation of such anomalies Dr. Hart advanced the theory that one must go back to the zygote itself, and looking on it as containing the determinants for the organs of the developed infant he suggested that in enzygotic twins there might be a complete or incomplete doubling of the determinants, and then a complete segregation of these into two groups. In identical twins the doubling and segregation were complete; in the other deformities the doubling was incomplete, and segregation thus gave a complete twin and an incomplete one. Thus if an acephalic twin was present along with a normally developed one the determinants for the head were not doubled, and thus the acephalic result on one side.—Dr. J. W. BALLANTYNE discussed Dr. Hart's ingenious theory of origin of double monsters, identical twins, and allantoido-angiopagous twins. It was now about 20 years since he had contributed several articles on these curious monstrosities, and whilst he had admired the ingenuity of Dr. Hart's theory he did not see how it explained such mixed types as the paracephalic twin without a heart. He agreed with Dr. Hart as to the probability that these twins were formed in the germinal period of ante-natal life. Dr. Hart deserved credit for the way in which he was applying Mendel's theory to the science of development.—Dr. JAMES RITCHIE asked if it were purely theory or had Dr. Hart any facts to support the argument that there was a doubling of the determinants.—Dr. W. FORDYCE and Dr. B. P. WATSON also engaged in the discussion.—Dr. HART, in reply, stated that there had been hundreds of exact observations that all organs of the body might be lost. In cases without a heart there was an absence of determinants. They must speculate to a certain extent and then see if the speculation fitted in as an explanation of certain facts.

Dr. H. M. CHURCH read a paper on Mongolism, and stated the case of a Mongol girl, born of a primiparous mother, who had a bicycle accident about ten days after conception. Both parents were young and healthy, and had a subsequent family history of three healthy boys. Mongolian primiparous birth was very rare, and Mongols were often the product of parents with disparity in age or of a mother exhausted by child-bearing. In this case there was no indication of parental alcoholism, syphilis, or tuberculosis.—Dr. HART thought that traumatism was one of the best explanations of the condition.—Dr. BALLANTYNE referred to the effect of traumatism on the embryo. It was known that when eggs were shaken by a railway journey and immediately incubated on arrival there would be a number of abnormal chicks, but if the eggs were allowed to rest some days and then incubated there would be the usual number of healthy chicks. But it was difficult to understand how

traumatism could act on the human embryo, packed away practically safe from a shock.—Dr. H. OLIPHANT NICHOLSON also took part in the discussion on mongolism.

Dr. A. H. F. BARBOUR and Dr. WATSON read a paper, illustrated with lantern slides, on Two Rare Pelvic Tumours—Perithelioma of the Uterus and Perithelioma of the Fallopian Tube. The former occurred in a parous woman, aged 58 years. The symptoms were watery and fœtid leucorrhœa and a return of uterine hæmorrhage ten years after the menopause. The tumour, removed by hysterectomy, was of the size of a five months' pregnancy. On section it was of a yellowish colour and contained many hæmorrhages very like an ordinary sarcoma. Microscopically a great part was found to be necrotic, but throughout the typical structure of a perithelioma could be seen. The tubal case was a woman, aged 51, unmarried and nulliparous. She had a swelling in the lower part of the abdomen and a hæmorrhagic vaginal discharge. Free fluid was found in the abdomen and secondary nodules were present all over the peritoneum. The left tube was the seat of a tumour. The patient died 11 days after the operation. The tumour of the tube presented the same characters as the uterine one described above.—The PRESIDENT said he showed a uterine specimen to the society recently, and though the uterus and upper part of the vagina had been removed it had already returned within three months and was spreading rapidly. These tumours were evidently of extreme malignancy.

Reviews and Notices of Books.

An Introduction to Bacteriological and Enzyme Chemistry. By GILBERT J. FOWLER, D.Sc., F.I.C., Lecturer in Bacteriological Chemistry in the Public Health Department, Victoria University of Manchester; Examiner in Biological Chemistry to the Institute of Chemistry of Great Britain and Ireland. London: Edward Arnold. 1911. Pp. 328. Price 7*s.* 6*d.* net.

WE cordially welcome this book because it deals in easy stages with an ever-widening and interesting subject—the rôle of bacteria and ferments in so many departments of life. The development of biological chemistry has been very extraordinary during recent years, and the importance of its study becomes more apparent as fresh instances are revealed of the value of its applications in matters of great practical moment. "A knowledge of it is now necessary for the scientific conduct of many industrial processes of great magnitude," says Dr. Fowler, "..... apart from its well-known applications in the fermentation industries, a scientific understanding of this branch of chemistry is likely to exercise considerable influence upon the future development of agriculture. ..... Recent advances in sanitation, especially the provision of pure water and the inoffensive disposal of sewage, call for the coöperation of the engineer and the biological chemist." To these reasons, advanced by Dr. Fowler as though to justify the appearance of his book, we may add another which makes the study of biological chemistry of supreme importance—namely, the share which it has taken in advancing our knowledge of the great vital processes of the human machine. The whole superstructure of modern medicine would never have been raised if the foundations had not rested on bio-chemical considerations.

Dr. Fowler opens his subject with a short chapter on chemical action in living matter, which necessarily introduces the reader to a consideration of catalysis, colloids, and osmotic pressure. Next comes a clear survey of bacteriological technique, and then the author evidently found he could not proceed further with his subject until the principles underlying organic chemistry had been discussed, a discussion which culminates in an account of the chemistry of the sugars and starches. Then the reader gets fairly into the subject by following the experimental details illustrating the action of amylase (diastase) upon starch. This naturally leads to a chapter on the alcoholic fermentation of sugar, and later the acid fermentation of alcohols and carbohydrates. Miscellaneous fermentations (fat-splitting enzymes, oxydases, clotting enzymes) come in natural sequence. The chemistry of the albumins, the nitrogen cycle, and the sulphur cycle complete the fascinating story. Finally, practical applications are considered in the remaining chapters dealing with the fermentations of indigo, tea, cocoa, coffee, and the biochemical processes concerned in the purification of water and of sewage effluents.

It is hard to keep pace with the many attractive departments of scientific advance which are so active on all sides at the present day, but the man who wants to be sound in his rudiments on a given subject, without being forced to read a long account of researches which have founded principles will be grateful for a text-book which presents the story clearly and shortly and in the simplest terms. This is true of Dr. Fowler's excellent book, and the individual who is anxious to know what the simple cell is and does, what ferments, enzymes, and oxydases are, and how they serve practical, purposes, will find the help he needs in this volume.

Diagnostic Therapeutics: a Guide for Practitioners in Diagnosis by Aid of Drugs and Methods other than Drug-giving. By ALBERT ABRAMS, A.M., M.D. (Heidelberg), Consulting Physician to Mount Zion Hospital and the French Hospital, San Francisco; formerly Professor of Pathology and Director of the Medical Clinic, Cooper Medical College. With 198 illustrations. London: Rebman, Limited. 1910. Pp. 1039. Price 21*s.*

THE somewhat cryptic title of this book gives but little clue to the nature of its contents and small justification for its size. In the preface we are informed that it is a work neither on therapeutics nor on diagnosis, but that an attempt has been made to coördinate both subjects with a special object in view. The nature of that special object is, however, left nebulous, and in substance this book seems to us to be a very lengthy and discursive expression of the author's views on the actions and uses of drugs and other therapeutic measures. Diagnosis by the results of treatment is at best a confession of inability to establish the nature of the condition of a patient on a sound rational basis, and the success of a given drug or measure cannot be regarded as confirming a tentative diagnosis. As our knowledge of disease processes and their effects increases, the rôle of diagnostic therapeutics, if we may adopt Dr. Abrams's nomenclature for the moment, should contract more and more, and even now we cannot but feel that its scope is limited. At the same time, in justice to Dr. Abrams, it is only fair to mention that his book contains a great deal of useful information, the outcome obviously of a wide experience of practical medicine.

The first chapter is given up to some general observations upon diagnosis and treatment, and bears little relation to the subject to which the book is ostensibly devoted. The second chapter deals first with the interfering action of drugs in diagnosis, which includes a discussion of the difficulties introduced by injudicious medication in obscuring some symptoms and inducing others, such as drug eruptions. Drugs in the etiology of disease are next considered, and under this heading the toxic effects of various medicinal agents and their special effects in susceptible persons are described in some detail, the various drugs being dealt with in alphabetical order. Drug diseases are then tabulated according to the effects produced by the drugs. Food in the etiology of disease forms the next subject discussed. Questions of diet, of food poisoning, of metabolic diseases, of intestinal and other parasites, and of constitutional diseases caused or modified by diet, are reviewed in this

section. This chapter concludes with a study of methods other than drug-giving in the diagnosis of disease. Various processes, such as blood-letting, catheterisation, lavage, exploratory punctures, and the use of the X rays, are described in full, together with the accidents which may occur from their use.

The subject of the third chapter is, according to its heading, that of drugs in diagnosis, or diagnostic pharmacotherapy. It is here that one might expect some justification for the title of the book, and certainly the indications in regard to diagnosis afforded by the administration of drugs are incidentally discussed, but the 222 pages to which this chapter extends are more concerned with the therapeutic uses and effects of the drugs than with their employment for diagnostic purposes. The fourth chapter, which is even longer, deals with methods other than drug-giving in the diagnosis of disease, and includes detailed descriptions of most of the mechanical methods of treatment and diagnosis as well as of psychotherapy. The fifth chapter is headed Diagnostic-etiologic Therapeutics, and is concerned with questions of the previous diseases of patients, diatheses, and conditions associated with special periods, such as childhood, puberty, pregnancy, lactation, and senility. The sixth chapter is even less related to the subject of diagnostic therapeutics, since it is concerned with the diagnosis of visceral sufficiency. We can imagine a smaller book strictly devoted to the consideration of the so-called therapeutic test in diagnosis being both interesting and useful, but Dr. Abrams, by his discursive, anecdotal, and allusive style, has defeated the object he presumably had in view.

Military Sanitation and Hygiene. By E. BLAKE KNOX, B.A., M.D. Dub., D.P.H. R C P.S. Irel. (Hons.), Captain R A M C. With 21 illustrations. London: Baillière, Tindall, and Cox. 1911. Pp. 346. Price 5*s.* net.

THIS is an excellent manual dealing with the subject of military sanitation and hygiene from the point of view of those whose duty it is to assist in keeping all ranks fit for the supreme test—namely, the test of war. There are succinctly laid down in it all the essential matters dealing with the medical inspection of troops in barracks, the environment of the soldier as regards the points connected with his barracks, with the disposal of excreta and sewage, the sanitation in camp and bivouac, the conservancy for encampments, the water-supply of camps in peace and war, the food of the soldier, questions connected with clothing and equipment, and the points in relation to marching. In addition there is a chapter especially devoted to physical efficiency, the subject being discussed under the heads of personal hygiene, cigarette smoking, and physical training. Here nothing seems to have escaped the notice of the author; we are glad to see he lays stress on the necessity of greater attention to the soldier's teeth, thus obviating many of the barrack-room affections, such as sore-throat and chronic tonsillitis, leading to deafness. Doubtless many digestive affections owe their origin to, or are aggravated by, imperfect mastication due to bad teeth. The last chapter is devoted to the collection of sanitary intelligence. Here we would especially draw attention to remarks on the food of the soldier considered in all its aspects—the soldiers' rations during peace, questions concerning the inspection of fresh meat, the diseases affecting meat, the soldiers' rations during war, the matters relating to preserved food, all of which are comprehensively yet concisely considered.

In these days, when company officers have to teach their men elementary sanitation, such a work as the present, together with the excellent manual of Lieutenant-Colonel R. Firth on Military Sanitation, will supply all the necessary information. Medical officers cannot carry large tomes about with them on service or in camps of exercise; but in the volume under review they will find nothing omitted of importance on the subjects of which the author treats. We heartily congratulate the author.

Les Arythmies. (*The Arrhythmias.*) Par Le Docteur H. VAQUEZ, Professeur Agrégé à la Faculté de Médecine de Paris, Médecin de l'Hôpital Saint-Antoine. Leçons recueillies par le Docteur CH ESMEIN, Chef de Clinique adjoint à la Faculté de Médecine de Paris. Avec 43 figures dans le texte. Paris: Librairie J. B. Baillière et Fils. 1911. Pp. 437. Price 15 francs.

UNTIL recently conditions of cardiac irregularity received but scant attention, and our knowledge in regard to their origin and significance was extremely slight. The more careful investigation of these cases by graphic methods and the study of the fundamental properties of heart muscle in relation to disturbance of the rhythm of the heart's contractions, have invested the subject with a real practical interest, and have already afforded much useful information. In the book before us Professor Vaquez has supplied an instructive, readable, and interesting account of the present state of our knowledge in regard to this subject. The lectures upon which this book is based have been reported and edited by Dr. Esmein in such a way that the subject-matter retains the didactic and simple form in which it was obviously delivered, which renders it easy to grasp and to follow.

In the earlier lectures a brief history is given of the study of arrhythmia, and a careful discussion of the myogenic and neurogenic theories of the inception of the cardiac rhythm is included. The importance of the primitive cardiac tube and of its remains in the adult organ in the form of the bundle of His, and the nodes of Tawara and Keith and Flack, is clearly brought out. An interesting summary of the fundamental properties of heart muscle and of the relation of these properties to arrhythmia is also given. The various graphic methods employed in the investigation of disturbances of the heart's rhythm are described and illustrated by photographs and reproductions of tracings. An apparatus for recording the movements of the left auricle by means of a tube passed down the œsophagus is described, and the interpretation and value of tracings obtained by it are carefully considered. A clear account is given also of the recording of electrocardiograms by means of the Einthoven string galvanometer. Professor Vaquez is careful in the description of any graphic method to discuss fully its limitations and fallacies.

After these preliminary questions have been dealt with he proceeds to discuss the classification of the various forms of arrhythmia, and adopts as most satisfactory those proposed by Dr. James Mackenzie and by Professor Hering, which are in effect almost identical. The subjective sensations associated with different forms of arrhythmia and their significance are clearly considered in a separate chapter. The individual forms of cardiac irregularity are then dealt with categorically, those first analysed being the physiological modifications associated with the phases of respiration and with the change from the recumbent to the erect position. The characters of extra-systoles, their mode of origin, varieties, and prognostic significance are next studied in great detail. An exhaustive examination of the clinical characters of paroxysmal tachycardia is given, and the results of recent work upon its pathogeny are critically considered. Professor Vaquez regards this condition as an accumulation of extra-systoles, and he refers it to a modification of the excitability of the heart muscle, analogous to that which leads to the occurrence of the ordinary forms of extra-systole. The nervous system is described as having only an indirect effect in its production. Both paroxysmal tachycardia and extra-systoles are said to be

favoured by a pre-existing affection of the cardiac muscle. The characters of the pulsus alternans, of the persistent irregularity described as perpetual arrhythmia, or pulsus irregularis perpetuus, are next fully described, and the various views current as to their production are presented clearly and are critically discussed. An interesting chapter is devoted to the consideration of the prognosis and treatment of the arrhythmias.

A well-arranged bibliography and a useful index add to the value of this work, which we can cordially recommend to our readers as affording an impartial account of the present state of our knowledge in regard to the subject with which it deals, and an interesting presentation of the advances which the graphic method of studying the circulation has afforded. It is gratifying to notice that ample justice is done to the work of English and American investigators, particularly to that of Dr. James Mackenzie, whose pioneer work on this subject is quoted in connexion with every form of arrhythmia.

LIBRARY TABLE.

The Individual and Society; or, Psychology and Sociology. By JAMES MARK BALDWIN, D.Sc., LL.D., Professor in the National University of Mexico. London: Rebman, Limited. 1911. Pp. 210. Price 6*s.* 6*d.* net.—This little book was, we learn from the preface, written under "very exact and exacting limitations of space imposed by the editor of the series"—i.e., the French Bibliothèque Internationale de Sociologie. It is, therefore, necessarily somewhat superficial. Professor Baldwin's text is, to use his own words, as follows: "Society is looked upon as a mode of organisation *sui generis*, its matter is psychological; its rules of organisation are those which characterise the personal development of minds in relation to one another. ..... Sociology itself, dealing with the external and historical aspects of social life, must allow and demand the psychological interpretation of its results." Professor Baldwin reminds us that "the social relation is in all cases *intrinsic to the life, interests, and purposes of the individual;* he feels and apprehends the vitality of social relations in all the situations of his life"—a saying which we take to be the modern translation of Aristotle's remark, φύσει πολιτικὸς ἄνθρωπος. Sociological study, Professor Baldwin says, must be informed and renewed by a psychological interpretation of the facts. From our own particular point of view the most interesting portion of the book is that in which (p. 169 *et seq.*) Professor Baldwin discusses the problem of the sterilisation of the unfit, and he has no doubt that with the progress of medical and surgical science and the corresponding recognition of this social need "eugenic progress will be in this direction." But the problems stated in the book are so wide and far reaching that we cannot think that the work can be considered of much value in itself, except in so far as it may lead the reader to consult Professor Baldwin's larger works upon similar subjects.

A Short History of Bond-street, Old and New. From the Reign of King James II. to the Coronation of King George V. By H. B. WHEATLEY, F.S.A.. Also Lists of the Inhabitants in 1811, 1840, and 1911, and Account of the Coronation Decorations, 1911. Published for the Bond-streets Coronation Decoration Committee by the Fine Art Society, 148, New Bond-street. 1911. Pp. 36. Price 2*s.*—Old Bond-street was built in 1686, New Bond-street, as far as Clifford-street, soon after 1700, and the extension to Oxford-street was commenced somewhere about 1721, so that the most aristocratic street of shops in London has had about two centuries of life in which to develop from a residential into a business thoroughfare, always preserving its reputation as a haunt of the fashionable world. The committee which was responsible for its uniform and distinctive decoration on the occasion of King George's coronation has done well in having had compiled by so sound an authority as Mr. Wheatley a succinct history of Bond-street's development from the days when Sir Thomas Bond, formerly a devoted follower of Charles II. in exile, headed the syndicate of adventurers who developed a portion of the estate on which Clarendon, in the last days of his prosperity, had erected the mansion destined to look down for so brief a period from its superior elevation upon St. James's Palace. Bond-street in its early days ran through fields, as Kip's old print of Burlington House, reproduced in Mr. Wheatley's book, plainly shows; and, indeed, he tells us how the great Sydenham, living, after a varied career, in Pall Mall (where he died in 1689), was robbed of a silver cup by a house-breaker, and how the thief was lost to pursuit in the bushes about the Conduit Mead. Bond-street hardly seems to have been a medical street in the nineteenth century. Of earlier days no lists appear to be available, although Mr. Wheatley reminds us that Fielding, in "Amelia," sends Colonel Bath to the house of an eminent surgeon in Bond-street to have his wounds dressed. In the lists republished by the author, George Spence, dentist to the King, is recorded to have been living in 1811 at No. 17, and P. Elizee, surgeon, at No. 36, Old Bond-street; and in 1840 "Smyth, Surgeon," is assigned as the tenant at No. 41, Old Bond-street, "Dr. Culverwell's Bathing Establishment" being at 23, New Bond-street. Among the celebrated names associated with the street's past history and reproduced in its recent decorations two may be mentioned from Mr. Wheatley's record. Laurence Sterne died in 1768 at No. 41, Old Bond-street, in the presence of a nurse and John Macdonald, a footman, sent to inquire after his health, who records, "I went into the room and he was just a-dying. I waited ten minutes, but in five he said 'Now it is come.' He put up his hand as if to stop a blow and died in a minute," a dramatically terse and restrained account of such a scene. The second is Bond-street's most distinguished inhabitant, Nelson, who about 1797 lived, we believe, at No. 147, now occupied by Mr. Charles Davis, the well-known dealer in antiques. Nelson lay there for three months wounded and suffering after the loss of his arm, tended by Lady Nelson and obtaining rest only by the use of laudanum. In the next century, after his death, Lady Hamilton lived at a house then numbered 130, and Mr. Savory, of Messrs. Savory and Moore, is mentioned by Mr. Wheatley as the possessor of a silver cup, her gift to his great-uncle, in return for services rendered by him as an apothecary. The name of the firm occurs at their present address in the list of 1840 already referred to, but that of 1811, being that of a "Town Visiting Directory," does not give it. Their beautiful old shop front, one of the few surviving in this part of London, is the subject of an illustration. The booklet is a readable one and might well be imitated in respect of other thoroughfares in our ever-changing metropolis.

Public Health and National Insurance. By H. MEREDITH RICHARDS, M.D. Lond., Medical Officer of Health and School Medical Officer, Croydon. London: P. S. King and Son. 1911. Pp. 77. Price 6*d.* net.—The greater part of this pamphlet consists of articles that have already appeared in several journals, including THE LANCET. As the medical officer of health of a large borough, a school medical officer, a medical referee to a large corporation, and an ex-police surgeon, the author may claim a wide experience in the conditions that render the National Insurance Bill such a complex problem. Those, he says, engaged in preventive medicine feel that a great opportunity will have been lost if the Bill simply results in stereotyping club practice. As to the various proposed

methods of payment, the author considers that no one method is to be preferred in all circumstances. He suggests that the Insurance Medical Service should be organised on preventive lines, and that both this and the existing public health service should be placed under a committee on which the insured, the medical profession, and the ratepayers should be suitably represented. He sketches out a plan under which a Statutory Health Committee, constituted as above described, should establish clinics staffed by part-time or whole-time salaried medical officers, to treat patients referred to the clinics, act as consultants and referees in respect of unusual claims, and undertake the medical work now devolving on the borough and county councils, such as school inspection. The committee should also arrange with general practitioners for attendance on the insured. The author further discusses the sanatorium benefit and the relation between the Bill and public health. In an appendix four main types of sick and medical benefit clubs are illustrated by concrete examples: the ordinary friendly society, the deposit society, the slate or dividing society, and the works club. The author insists that the system of insurance will not achieve its great possibilities of utility if it fails to correlate the medical service of the insured with the existing public health and educational services, or if it denies equitable payment for public work.

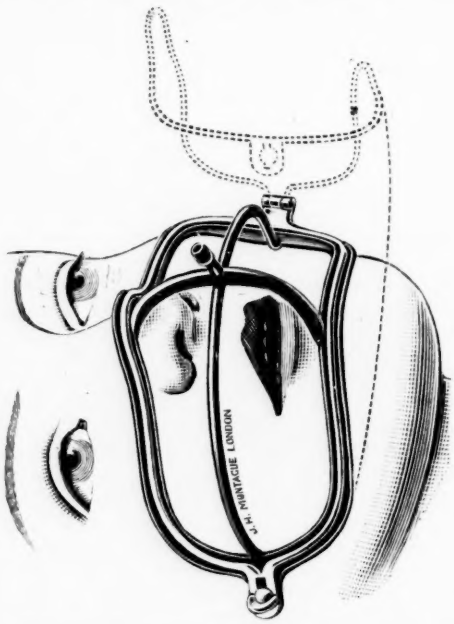
Retrospective Memoranda. By Sir JONATHAN HUTCHINSON, F.R.S. Subject Index and Index of Names, compiled by CHARLES R. HEWITT, Librarian to the Royal Society of Medicine. (New Sydenham Society's Publications.) London: H. K. Lewis. 1911. Pp. 70.—This is a memorial volume containing a short account of the New Sydenham Society, which, originating in 1859 on the death of the original Sydenham Society, was wound up in 1907. The book contains, also, an index catalogue of the society's publications and of the authors and translators of the works published by it, also portraits of Sir Jonathan Hutchinson and the late Mr. Henry Power. In the concluding words of his Memoranda Sir Jonathan Hutchinson says: "I do not believe that either of the two societies—the Sydenham or the New Sydenham, or both—have exhausted their field of productive labour. It may, perhaps, in each instance, have been for the best that its special organisation came to an end when it did, but there is surely no good reason why a third generation should not suitably engage in similar work." But he gives some sage advice to any who may be tempted to follow in this line—viz., not to undertake any large books, lexicons, year books, large-paged atlases, or works involving original composition or associated work, and, above all, nothing that cannot be finished promptly. It is interesting to note that the surplus sum of £171 10*s.* 8*d.* remaining after the discharge of the society's liabilities at its winding up was presented to the library of the Royal Society of Medicine for the purchase of works of special value to be marked as the gift of the New Sydenham Society.

The Dental Directory, 1911. London: John Bale, Sons, and Danielsson, Limited. Pp. 200. Price 2*s.* 6*d.*—This directory contains the names and addresses of registered dental practitioners, arranged both alphabetically and topographically, together with the date of their qualification and hospitals and places of medical education, practising in the United Kingdom, the Channel Islands, the Isle of Man, the colonies, and abroad. Information with regard to the dental hospitals and schools in the United Kingdom, dental societies, and dental publications is also included, with other useful information. As it does not seem to be generally known that the Channel Islands and the Isle of Man have special Dental Acts of their own, this fact is referred to by the publishers in a prefatory note. The book is of the convenient size of 8 in. by 3½ in.

New Inventions.

A NEW FRAME FOR THE ADMINISTRATION OF CHLOROFORM AND ETHER BY THE OPEN METHOD.

THE frame figured differs essentially from those generally in use in that its long axis is at right angles instead of parallel to that of the face. The frame (roughly the shape of a Napoleon hat) consists of a narrow trough adapted to the transverse curves of the chin and cheeks, and having a deep indentation to accommodate the nose. On this base is built up a framework of two metal arcs joining the respective extremities of the long and short axis of the bed frame, that joining the extremities of the short axis being a tube perforated on its under side, and having an extension at its highest point for the attachment of a Junker or oxygen tube (as in other patterns). The lint covering is kept firmly in position by a wire frame closely fitting the bed-frame and hinged to it at one end. The advantages



claimed for this frame are: 1. That it is more convenient to use, having but little tendency to slip off the face, and also having one of its poles close to the hand which controls the angle of the jaw. 2. That it fits the face more accurately than other patterns, and allows of the entry of less vapour-free air in patients with moustache and beard—a point of especial importance in the open administration of ether. 3. That it is convenient for operations on the upper part of the face, as a space of a full inch can be obtained between the upper edge of the frame and the lower border of the orbits. The narrow metal trough, though not peculiar to this apparatus, minimises the risk of chloroform burn without making the frame clumsy.

The frame has been made for me by Mr. J. H. Montague, of 69, New Bond-street, London, W.

South Kensington, S.W. E. V. DUNKLEY, M.D. Lond.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—At the annual general meeting of this society held on July 14th the following officers for 1911–12 were elected:—President: Mr. W. McAdam Eccles. Treasurer: Mr. T. Gunton Alderton. Secretaries: Mr. D. F. Maunsell and Mr. N. Bishop Harman. Librarian: Dr. Arthur Saunders. Editor of Journal: Mr. H. W. Chambers. Editorial secretary: Mr. Aslett Baldwin.

THE LANCET.

LONDON: SATURDAY, JULY 29, 1911.

The British Medical Association: the Presidential Address.

THE Presidential Address of Professor ROBERT SAUNDBY, delivered at the opening of the Seventy-ninth Annual Meeting of the British Medical Association, will be found on another page. It contains so much that is of interest and value in connexion with the National Insurance Bill, and with the position occupied by the medical profession in the discussions arising thereon, that it is unfortunate that it probably will not be as widely read as it deserves to be by those laymen whose full appreciation of the points at issue is to be desired. For it is particularly important, not now but always, that the public should be able to understand the medical view. The question of the position which the medical profession should occupy under the new legislation is a matter of vital and intrinsic importance to that profession, and of no less vital and intrinsic importance to the public; and we are glad to observe that the feeling is growing among the public that, so long as the members of the profession seek to insist upon a right to be a party to a bargain, justice must uphold their view. A bargain honourable to the profession and beneficial to the community is what we want, and not to have obligations thrust upon us by the legislature and our status altered in the economy of the nation despite our just and reasoned disapproval. The position of the medical profession at the present critical moment is one calculated to add weight to its claims for due consideration. Its recent progress may be traced by anyone who studies, and is able also to read between the lines of, the opening of Professor SAUNDBY'S address. The advance made in medical education, which he illustrates from presidential addresses delivered in past years at Birmingham, is a great and notable fact which few are likely to ignore or to deny if it be brought to their memories. The widening of the aims of medical science, and the prominence which it has given to the prevention as distinct from the healing of disease, have a similar bearing upon the controversies connected with the National Insurance Bill. For the progress of medical science and the development of medical education have supplied the motive for the introduction of a measure which would have had no *raison d'être*, so far as its medical clauses are concerned, if the possibilities of medical beneficence had not been such as to command universal recognition. Those possibilities are the result of the work done by the medical profession in the past; and our students are being trained not merely to equal but to excel the achievements of their predecessors. Upon those grounds, if upon no others, the medical profession should have an irresistible claim to the right to be consulted, in order that the work which it is to have assigned to it in the future may be conducted with the fullest possible measure of efficiency.

The two principal points in the discussion of national insurance to which Professor SAUNDBY refers in that part of his address which deals directly with the imminent Bill are naturally the methods of control of the administration of medical benefits and the system of payment of medical men to be adopted. With regard to both matters the medical profession speaks from experience and from observation, and not speculatively, but in the first place it insists upon its right to be heard (using the expression we have employed above) as a party to a bargain, and not as a subservient body upon which an obligation may be imposed without its consent. The individual who undertakes service for the State knows, when he does so, to whose orders he will be subjected, and his confidence in the competence of that authority is one of the inducements for him to serve. He knows, that is to say, the class to which those in authority over him will belong, and the degree of fitness which is likely to characterise them. He may volunteer to perform a particular act subject to leadership of a totally different class, but he cannot with fairness be obliged to do so. The medical man who has entered upon his profession has not submitted himself to authority at all other than that governing the profession of which he has become a member, and the Bill proposes to limit his professional sources of income, or possibly to annihilate them unless he will allow himself to be controlled by bodies which he has had under his observation and whose control he looks on with mistrust. Professor SAUNDBY will be found not to confine himself to criticism of the Friendly Societies, but to supply pertinent and relevant facts with regard to the conditions which have prevailed in Germany, where the administration of medical benefits has been placed in the hands of committees managed by working men. A trades union, having recourse to strikes in order to enforce the rights of its members, has been, briefly, the only means open to the German medical men concerned in order to protect themselves against intolerable conditions of practice. Surely it would be better to have the fullest discussion beforehand, and the consent of the profession at large to the innovations proposed, than to go forward too quickly, and so drive an outraged profession to the methods of the dock labourer, with the difference that in the case of the dock labourer his cessation from the performance of his duties does not involve the risk of human lives.

With regard to the method of payment for the service to be rendered, we are shown the example of what has occurred elsewhere in the instance cited by Professor SAUNDBY from Switzerland, where the result of the allotment of fixed salaries to medical practitioners was found to be that the demands of the public for professional attendance by night and by day could not be satisfied, so that the practitioners had to abandon an arrangement into which they had more or less voluntarily entered. From the other point of view—that of the public, whose interests are at stake as essentially as those of the medical profession—Professor SAUNDBY rightly points out that "the services of a medical practitioner are above all others difficult to appraise, but no one can doubt that they cannot be adequately rendered if he is unable to spare the necessary time to

examine his cases. What can be the good of spending millions on the provision of sanatoriums for phthisis if the medical attendance is to be of such a character that early cases will rarely be recognised? The interests of the public are at one with those of the medical profession in the need for putting an end to contract work." The truth of the matter is that the aim of the National Insurance Bill, and of the Chancellor of the Exchequer in introducing it, is not that of the Friendly Societies, who in providing medical attendance in accordance with their own estimate of the value of medical science have brought into existence most of the evils of contract practice. Mr. LLOYD GEORGE has the ambition to give the people at large not the benefits of medical attendance already secured voluntarily for themselves by the members of Friendly Societies, but a great deal more. The Friendly Societies have been content, as a rule, to provide their members with such a semblance of medical attendance as may be rendered by an underpaid medical officer who, if he is to earn a decent livelihood, must reduce the time expended upon many of his cases to a very undesirable minimum. Mr. LLOYD GEORGE aims at obtaining for the working classes of the country the full benefits of modern medical science and the services of those who have taken best advantage of modern medical training. His difficulty is to do this with the financial means at his disposal, and the solution of the problem can only be found by securing the effective goodwill of the medical profession, who are in accord with his aims, as we have just stated them, but who differ from him as to the means by which these may best be attained, and as to the extent to which the attempt to attain them should be made at their expense. Professor SAUNDBY makes out a good case for delay in passing the National Insurance Bill until the medical profession has been adequately consulted—one of the two main points for which we have striven in THE LANCET. Our other contention could not be put in better words than those which he has employed, where he states that in the public interest contract medical work should be abolished.

The Coöperation of Medicine and the Public in the Campaign against Tuberculosis.

IN discussing Professor SAUNDBY'S wise and moderate address, delivered before the British Medical Association on Tuesday last in his Presidential capacity, we lay stress on the national benefits that must ensue from a better understanding by the public of professional aims and hopes. Such a conference, briefly reported elsewhere, as that which was held last week in London by the National Association for the Prevention of Consumption and other Forms of Tuberculosis forms a very good example of what we mean. Administrative action in regard to matters of public health, if it is to be effective, requires a preliminary education of public opinion as a necessary antecedent. A great deal of useful educational work with this object in view has been carried out in regard to tuberculous diseases by members of the medical profession, public health authorities, philanthropic agencies, and individuals. The most healthy sign of the awakening of the public interest in regard to these matters is the attention which is now being given by statesmen and municipal authorities to them. The practical measures which are being organised to deal with tuberculosis are probably to be regarded as the outcome of the fact that everyone now knows that consumption, the commonest form of tuberculous disease, is communicable through the agency of dried sputum from cases of this disease. That one result of this knowledge is a tendency to shun the unfortunate sufferer from this disease is a regrettable though intelligible fact. If it can be still further brought home to the public generally that the disease is in a very large majority of cases curable if recognised early and appropriately treated, and that it is preventable and not an inevitable result of family predisposition, there can be little doubt that an effective and comprehensive campaign both curative and prophylactic will soon be inaugurated. There are not wanting encouraging indications that some such effective mechanism may shortly be evolved. The recent Order of the Local Government Board in regard to the notification of patients suffering from pulmonary tuberculosis is one step forward. The publication of the final report of the Royal Commission on Tuberculosis (Animal and Human) has drawn attention in no uncertain manner to the dangers of milk from tuberculous cows, even in the absence of tuberculous disease of the udders. There are reasons for hoping that before very long this will result in the enactment of measures to secure a purified milk-supply. Again, the proposals in the National Insurance Bill now before Parliament to devote a large capital sum and an annual contribution to the erection and maintenance of sanatoriums are striking evidence of the recognition of the importance of this disease in regard to the industrial population. The prominence which is now given by the lay press to these questions, the establishment of dispensaries, the educational and nursing work carried out by health visitors and trained nurses are all useful agencies in the campaign, and afford further indications of public interest in it.

It will be seen that the annual conference of the National Association for the Prevention of Consumption and other Forms of Tuberculosis came at an opportune moment, and it was certain that it would secure for its deliberations and recommendations considerable public notice. Not a few of the speakers emphasised the importance of the diffusion of knowledge in regard to tuberculosis. Mr. JOHN BURNS, in a forcible and practical opening address, stated that the "man in the street" was now determined to coöperate with the medical officer of health, the town and county council, and the private practitioner in the important work of the campaign against tuberculosis. He gave statistics in regard to the death-rate from tuberculosis, which showed how marked was the decline of the disease during the last 50 years. He pointed out the significance of the fact that the diminished incidence of consumption was concurrent with increasing sobriety, better housing, growing education, and the social and moral elevation of the people. Professor SIMS WOODHEAD, in advocating the

inclusion of hygiene in the curriculum of secondary schools, as well as in elementary schools, maintained that the education of the public by means of exhibitions and lectures and other methods was one of the most important developments of modern hygiene and medicine. Dr. F. C. SHRUBSALL stated that the Education Committee of the London County Council had decided to provide a course of lectures for teachers on the manner in which they could assist the anti-tuberculosis campaign. Sir WILLIAM OSLER believed that the public were now alive to the necessity for dealing with this insidious disease in its early stages. He reviewed the various methods of treatment, and maintained that since not more than 10 per cent. of the cases could be treated in sanatoriums, our energies should be directed very largely to the elaboration of the successful home treatment of the disease. Among other important subjects discussed at the Conference were the value of sanatorium treatment, the educative value of sanatoriums, after-care, schools for tuberculous children, and the segregation of advanced cases. All of these matters are of such real importance in regard to the treatment and prevention of the disease that it is to be hoped that the reports in the lay press will be widely read. They were in many journals so full and good as to relieve us of the responsibility of more than indicating the views of the various speakers.

The proceedings of the Conference show how many and varied are the agencies which are being employed in the campaign against tuberculosis. What is now needed is the coördination and extension of these agencies together with the necessary financial assistance to enable them to be effectively employed. In matters concerning the public health, where costly financial questions are concerned and where certain official interference with the personal liberties and conditions of the patient is involved, such as notification and possible segregation, Parliamentary action can hardly move in advance of public opinion. Indeed, it is liable in some instances to be deferred until public pressure enforces it. It is obvious, therefore, that the coöperation of the public with the medical profession in this campaign is the essential factor necessary for its success. Both Mr. JOHN BURNS and Mr. WALDORF ASTOR pointed out the economy that would be effected in regard to the expenses of the Poor-law, and in disablement benefits, if the disease could be stamped out or even satisfactorily dealt with. There can be no doubt that the immediate outlay involved would soon be compensated by the better health of the community, and we hope that the pressure of public opinion will accelerate the achievement which the medical profession have so constantly in view.

The Medical Officer of the London County Council.

THE announcement that Sir SHIRLEY F. MURPHY will vacate his post as chief medical officer of health to the London County Council at the end of the present year, which was made at the meeting of the Council on Tuesday last, will be received with universal regret. Men occupied in every variety of medical inquiry have long become accustomed to rely upon the central medical department of the metropolis for information as to the prevalence and prevention of disease and for guidance on every variety of administrative question relating to public health in London. Many will find it difficult to realise that it is hardly more than 20 years since the department was created, and that before that time there was no authority charged with the care of the public health of London as a whole. Sir SHIRLEY MURPHY, the first medical officer of health of the London County Council, was appointed when that body came into existence in 1889, and his well-known series of annual reports began in 1892. The period which has since elapsed has been eventful in the sanitary history of London. Large political changes have been made in the units of administration, and a mass of special legislation has been enacted at the instance of the Council in which sanitary reforms have had to be adapted to the complicated system under which the metropolis is governed. New matters in abundance have been brought within the province of public health administration, while older problems have needed reviewing and developing as epidemiological knowledge has increased and methods of prevention have improved. In all such questions it has been of first importance that the London County Council should have expert advice of the highest order and obtain from its medical officer of health a balanced judgment and continuity of policy. It is only necessary to consider how a great elective administrative body may be divided by conflicting interests, urged by enthusiasts or "anti-" organisations or restrained by reactionaries, to realise the magnitude of the service which Sir SHIRLEY MURPHY has rendered in these respects. We do not attempt here to particularise the sanitary reforms of recent years—for example, the housing of the poor, the organisation of the control over infectious diseases, or the better supervision of milk and food supplies—which have so largely been due to Sir SHIRLEY MURPHY'S initiative or guidance. A catalogue of these would fill many columns; it is sufficient to say that to-day the sum of all his activities is a healthier London; no greater commendation could be given.

The report presented by the General Purposes Committee and adopted by the Council on Tuesday contained a striking testimony to the worth of Sir SHIRLEY MURPHY'S services. The committee's report was also memorable in another respect. It recommended a new policy, which has now been accepted by the Council, for placing the whole educational medical service, as well as the general work of the public health department, under the control of the medical officer of health of the county, who will thus in future be directly and primarily responsible for administration of both branches, and for the advice given to the Council in matters relating to the medical examination and after-treatment of school children, as well as in other subjects. Readers of THE LANCET will not need to be reminded of the prolonged controversy which is terminated, we hope finally, by this important decision. Hitherto, the association of the county medical officer of health with the direction of the medical work of the Education Committee of the Council has at best been merely nominal; it may be said that in practice there have been two medical services—one under the county medical officer of health, the other under the medical officer (education). The failure which has notoriously occurred in the

organisation of the inspection of London school children and the arrangements in connexion with "after-treatment" must in large measure be ascribed to the repeated neglect of the Council in the past to utilise the great administrative experience which could have been made available had the medical service been consolidated under the county officer. When the failure had to be acknowledged, and a new organisation became imperative to meet the demands of the Board of Education, the Education Committee of the London County Council proposed a still more retrograde policy, which would have resulted in the care of the health of the school children of London being divorced from that of the rest of the population and handed over to the lay head officer of the Education Department, to whom the medical officer (education) would have been responsible. In emphasising the obvious objections to this policy in our issue of Feb. 25th we ventured to prophesy that it could not be maintained, and that the alternative of amalgamation of the medical services under one medical head must soon be accepted. The decision to which the Council has now come will, we believe, be welcomed by all who have the best interests of the public health service at heart, and who have viewed with dismay recent tendencies to regard the school child as an article strictly preserved for subjection to "educational" authority, even in such matters as the prevention and treatment of disease. It is greatly to be regretted that the large reorganisation which will now be necessary is not to be undertaken by Sir SHIRLEY MURPHY himself. But obviously the task is one which will require sustained and continuous work for many years, and the rules for compulsory retirement on the attainment of the age limit are strictly guarded and enforced. The Council, however, "so that his successor shall have the advantage of his long experience, particularly in the details of medical administration," have wisely made special arrangements to retain Sir SHIRLEY MURPHY'S services in a consultative capacity.

Annotations.

"Ne quid nimis."

SUPERANNUATION FOR MEDICAL OFFICERS OF HEALTH.

A BILL to provide for the superannuation of medical officers of health in England and Wales was introduced into the House of Commons on July 20th by Dr. A. P. Hillier, supported by Sir Clement Hill, Mr. John Robertson, Mr. Henry Forster, Colonel Hickman, and Mr. Barnes of the Labour party. All medical officers of health, whether devoting their whole time to the duties of their offices or not, are included in the provisions of the Bill, which is on a contributory basis. The scale of contributions is equal to 2, 2½, or 3 per cent. of each year's salary, according to whether the contributor has been five years, 15 years, or more than 15 years in office respectively. The superannuation allowances are the same as those provided by the Poor-law Officers' Superannuation Act, 1896, namely, one-sixtieth of the average salary of the final five years for each year of service, with this important addition, however, that after ten years' service an additional five years are added for the purpose of computing the allowance. Provision is made in the Bill for the return of the contributions under certain contingencies, and within three months of the commencement of the Act those medical officers of health whom it concerns may contract out. The superannuation allowances are to begin after the completion of an aggregate service of 35 years, or upon the attainment of 60 years, or after disablement sufficient to prevent the officer discharging his duties with efficiency. When an officer retires after serving more than one authority his superannuation allowance will be paid in suitable proportions by each of those authorities, thus avoiding the position created by the Poor-law Superannuation Act in which the whole of the allowance is paid by the authority whom the officer last served. Some of the metropolitan borough councils and a few authorities in the provinces have already made provision for the superannuation of their officials, and if the Local Government Board certifies that such provision is adequate these authorities will be exempt from the provisions of the Bill.

"THE PRIESTHOOD OF SCIENCE."

THE notion that schools of thought have at various times in the world's history deliberately falsified fact upon an established plan is one that fascinates a certain class of mind. In an extreme form this notion appears in the writings of the late Edwin Johnson, that almost insane doubter, who in his remarkable "Growth of English Culture" maintains the thesis that English history was the conscious invention of Benedictine monkish writers, who issued their fabrications at the time of the revival of letters, and that consequently half the time-honoured chroniclers, such as Gildas, Nennius, Bede, and Giraldus Cambrensis, are mystic persons, monastic deadheads, so to say, and the other half, such as Camden and Baker, are the dupes of the monks or myth-mongers. It is clear that if English history be a mere invention, then the history of English science and medicine is badly shaken, too. And not to confine ourselves to England, is it not possible that the School of Salernum is of the nature of myth? The idea that in the worlds of science and medicine people write to order and in obedience to a scheme laid down at some obscure and undesignated headquarters has for years obtained among a certain order of mind. We hear perpetually of the "Priesthood of Science," as though science were merely an affair of dogma and not of ordered fact, open to almost hourly revision. We hear, too, from those who in their heart of hearts do not like science, that it is "exploded"—that is the word—whenever such a revision has perforce to take place. We have heard an accomplished High Church Christian-Socialist clergyman maintaining before a completely ignorant and applauding audience that the queer Lenten mystery-play, *Everyman*—a dramatic performance at which it is customary for the audience to behave as though they were at a prayer meeting—has once for all unmasked science. It is amusing to think of Newton, Darwin, Lister, Tait, and Kelvin as bowled down by a crabbed miracle-play, chiefly concerned with the crudities of good and evil in the life of an individual in the Middle Ages. Darwinism was, of course, in the opinion of these credulous and would-be critical persons, "exploded" when Weismann came to the fore, and when Mendel was re-discovered by Professor Bateson and others. The young university man, untouched by scientific training and ways of thought, will maintain that Professor Bateson's writings prove that there is no sort of rule or law in descent. "You plant two peas," cries our eloquent young friend, completely dominating an applauding dinner-party audience, "and one of your peas

comes up six feet high and one is only above ground. And that's what Bateson says. And what becomes of your Darwin?" To verbal fireworks such as these the popular fallacy of "the Priesthood of Science" owes its inspiration. It is not, indeed, probable that at any time, even in ages of cynical obscurantism and ignorance, were men induced to form themselves deliberately into schools of deceit. It is almost to the credit of human nature that a lie is not consciously propagated. Man is too uninventive, and testimony is too scattered and independent, to admit of the consistent propagation of lies. This matter has been acutely discussed by Professor Haddon in his admirable little "History of Anthropology" recently published. But if planned mendacity of a whole school is an impossibility, we admit that in certain given surroundings, by means of traditional influences or through the compiler's indolent habit of copying down whatever he finds written by a previous scribe, many fallacies have enjoyed a vast vogue. Thus, in the age when phlebotomy was paramount in medical practice, medical writers undoubtedly propagated the fallacy of excessive bleeding by dint of copying its praises out of previous text-books. The public were impressed by the fact that all medical writers were in favour of a course of which the wisdom was later shown to be doubtful. Here, when the wisdom of blood-letting was impugned there arose, quite naturally, the idea of a medical conspiracy (a "Priesthood of Science," as men now name it), and such ideas, again, were the ancestors of the modern *cliché*, which represents science as a fallible and obscurantist conspiracy, at any moment liable to explosion.

THE PREVALENCE OF INTESTINAL WORM-INFECTIONS AND THEIR EFFECTS ON HEALTH.

THE frequency with which the natives of the tropics suffer from intestinal parasites, and the debilitating influences which such infections have upon the health of those engaged in industrial labour, make the subject one of much importance both from the medical and the economic point of view. Any investigation which helps to throw light on the causation or prevention of intestinal parasitism must be welcomed not only by the members of our profession who practise in tropical countries, but also by the employers of native labour in those regions. Among other places where such investigations have been carefully carried out we may mention the Philippine Islands, where the American experts attached to the Bureau of Science have done much good work in this direction. The latest of these contributions is published in a recent number of the *Philippine Journal of Science*, to which Dr. David G. Willets furnishes a paper entitled "A Statistical Study of Intestinal Parasites in the Tobacco Hasciendas of the Cagayan Valley," which he had read early in the present year at a meeting of the Manila Medical Society. It appears that this inquiry was undertaken by Dr. Willets with a view to determine the frequency and medical significance of intestinal parasitism in certain parts of the Island of Luzon, with particular reference to the incidence and significance of hookworm infections. The area selected for the investigation was one in which the native population was engaged almost entirely in the cultivation of the tobacco-plant. The fæces of 4278 workers were examined, and no fewer than 3656, or 85·46 per cent., of them were found to be infected by parasitic worms. It may be mentioned that the conditions under which the stools of the natives were examined were not favourable for finding the presence of amœbæ or flagellates, hence no systematic search was made for these two classes of organism, but it is believed that both of them are comparatively infrequent in the locality in question. Of the 4278 persons examined, 2038, or 47·64 per cent., had a single infection, usually either ascaris or ankylostoma; 1444, or 33·75 per cent., had a double infection, roundworms and hookworms being generally present together; 168, or 3·93 per cent., had a triple infection, mostly consisting of the two kinds of worm already mentioned, along with trichuris; while 6 persons, or 0·14 per cent., suffered from a quadruple infection. Ascaris was found in 2653 instances, or 62·04 per cent. of those examined; ankylostoma in 2326, or 54·37 per cent.; trichuris in 342, or 7·99 per cent.; while oxyuris was discovered in 64 instances, or 1·50 per cent.; and tænia in 59 cases, or 1·38 per cent. The other infections more rarely met with were hymenolepis, 5 cases; strongyloides, 4; and trematodes 1 instance. Ascaris was more frequent in females than males, but, on the other hand, ankylostoma was found more often in males than females; this may be accounted for by the fact that more males work in the fields, where presumably they contract the infection. As to the effects produced by these parasites on the health of the population, it is said that the people as a class are anæmic in appearance and apathetic in demeanour, conditions not infrequently met with in pronounced ankylostomiasis, as, for example, among the "poor whites" in certain of the Southern States of North America. Dr. Willets, however, is careful to point out that among the Filipinos on the Island of Luzon other local factors probably act in lowering their vitality. Among these, apart from the climate, may be mentioned too early marriages, and among the women too rapid child-bearing, poor quality of the food, excessive smoking of tobacco begun at a very early age, habitual indulgence in alcoholic drinks, also begun at an early age, and the prevalence of tuberculosis. It is unfortunate that the circumstances of the inquiry did not permit of a clinical study of each case and the collection of evidence as to definite injury, if any, to health inflicted by intestinal worms. Dr. Willets ventures the opinion that ankylostomiasis when uncomplicated by the presence of any other species of worm may be of less significance than cases in which two or more parasitic infections occur together in the same person. Much improvement in health is known to follow upon treatment which clears out all parasitic worms from the alimentary canal. We are informed on good authority that where worms are present in the intestine abrasions of the lining membrane are apt to occur, and that bacteria from the contents of the gut are liable to penetrate from these abrasions into the deeper tissues, giving rise to dangerous inflammations and septicæmias, or to perforation. At present the opinion seems to be that the chief influence of intestinal parasites is in lowering the vitality of the host and rendering him more susceptible to other diseases. Dr. Willets quotes the remarkable results which have been obtained in the Bilibid prison, Manila, subsequent to the inauguration of measures for securing systematic examination of the prisoners' fæces to detect the presence of parasites, followed by medical treatment when necessary. Before the supervision of the prison was taken over by the Bureau of Health (of which Dr. V. Heisser is now the distinguished director) the mortality of that institution had attained the appallingly high rate of 238 per 1000. After certain sanitary improvements had been carried out by the Bureau of Health the death-rate fell to 75 per 1000, below which it seemed impossible to reduce it. After the measures mentioned above for detecting intestinal parasites and for treament had been carried out, the mortality sank to the comparatively low rate of 13·5 per 1000. This decreased mortality was not at first general all over the prison, but was observed to follow, section by section, the application of the systematic treatment for intestinal parasites among the inmates. It cannot therefore be disputed that this dealing with worm

infections was largely instrumental in effecting a reduction in the death-rate of Bilibid prison. As regards the prevention of parasitic worm infections among the workers in the tobacco plantations of the island of Luzon, this, as elsewhere, seems largely to depend upon the provision of proper and sufficient privy accommodation for the people, so that indiscriminate defæcation, and consequent contamination of the surface of the soil by infected human excrement, may be avoided.

THE SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA.

THE recent and sadly sudden death of Lieutenant-Colonel J. T. W. Leslie, C.I.E., I.M.S., Sanitary Commissioner with the Government of India, has been made the occasion of an appeal by the *Times of India* for the abolition of this high appointment on the grounds that it is an appointment which should never have been created. Our contemporary says:—

> It is a post which owed its existence to the wave of centralisation which afflicted the Government of India and fastened upon us unnecessary offices like the Inspector-General of Excise, for which there was not the slightest justification. It is an appointment which should never have been created. If it had been created it should have been filled by a practical sanitary officer, not by one with no special qualifications for the office. In effect it has been impossible to trace any advantage from the establishment of the post, and it set up no little friction between the Government of India and Provincial Governments, and later between the responsible adviser of the Government of India on medical matters and a junior officer. Now that it has been rendered vacant it should be allowed to die a natural death, as the Inspector-Generalship of Excise should too. If, however, it is found that in view of the increased activity in sanitary matters which is being displayed the work has grown too heavy for the Director-General of the Indian Medical Service to discharge unaided, the difficulty could be met by giving him a secretary solely for sanitary work.

We do not agree with the assertions above quoted, and we believe that such a step as the abolition of the Sanitary Commissioner with the Government of India would be a retrograde one. At no period in the history of Indian sanitation is such an appointment of more importance than at the present, and instead of reducing its status it might be well if the Government of India would appoint a surgeon-general of its Indian Medical Service to act as deputy to the Director-General, as has been carried out at the War Office for the British service. This would assure not only freedom from friction but an increased status to the incumbent of the post.

ALCOHOL AND INSANITY.

THE July number of the *British Journal of Inebriety* contains, in addition to a short introductory address by the President, Dr. Theo. B. Hyslop, on the Work of the Society for the Study of Inebriety, a valuable and interesting paper by Dr. F. W. Mott on Alcohol and Insanity. Dr. Mott has already dealt with this question in several communications, notably in a paper in the *Archives of Neurology* (Vol. III.), in a *rapport* to the International Congress of Psychiatry at Amsterdam on the Psychoses of Chronic Alcoholism, and in a paper on the Nervous System in Chronic Alcoholism read before the Pathological Section of the British Medical Association last year. In this further contribution to the literature of the subject he reiterates the views expressed in his earlier papers, and furnishes additional statistical evidence in their support. In opposition to what used to be, and in some quarters is perhaps still, the current opinion, Dr. Mott maintains that alcoholic excess is not a very important cause of insanity, and he holds that the exaggerated estimate formerly entertained of its influence in this respect is due to the failure to discriminate between what is really the result of alcoholism and what is innate and due to inheritance, the confusion arising from the fact that intemperance is so frequently an early, possibly the earliest, sign of mental breakdown. Arguments in favour of this view may be found in many different orders of facts, but the most conclusive are unquestionably those which Dr. Mott has drawn from the data of pathology. He has been able to compare the records of 2000 post-mortem examinations at Charing Cross Hospital with the records of a similar number at Claybury Asylum, with the result that, whereas in the hospital series there were 110 cases of cirrhosis of the liver, 60 per cent. with ascites, in the asylum series there were only 23 cases of cirrhosis, and among these only one case with ascites. These figures are hardly reconcilable with the view that alcohol is the important factor that asylum statistics appear to show. And, further, Dr. Mott points out that with regard to this matter the clinical facts agree with the pathological evidence, for the instances of mental affection of distinctively alcoholic character and resulting from the continued direct or indirect action of alcohol upon a relatively healthy brain are comparatively few, while the cases of insanity with a history of alcoholic excess, but occurring in persons of innately defective organisation, are numerous, and, moreover, in their clinical features are hardly, if at all, distinguishable from insanities occurring in abstainers. On the vexed question of the effects of parental alcoholism on the offspring Dr. Mott takes the eminently sane view that, while it is contrary to reason to suppose that the germ cells can remain unaffected in conditions involving prolonged toxic influences, yet it is necessary to have data of a more precise kind than any so far produced before we can attempt to give a definite estimate of the extent of these effects. None the less, it is Dr. Mott's considered opinion that parental alcoholism does undoubtedly lower virility, and that, at all events, when continued through successive generations, it must result in physical and mental degeneracy. The whole article may be commended as a most admirable and temperate statement of a question which is usually considered in a spirit to which these adjectives would certainly not be applicable.

THE ANNUAL DINNER OF THE MEDICO-LEGAL SOCIETY.

THE Insurance Bill naturally formed the subject of most of the speeches and conversation at the annual dinner of the Medico-Legal Society at the Holborn Restaurant. The dinner was held on July 20th, under the presidency of Sir John Tweedy. Among those present were Earl Russell, Mr. Rigby Swift, M.P., Sir Henry Morris, Sir William Collins, Sir Frederic Hewitt, Mr. Charters J. Symonds, Dr. W. H. Willcox, Dr. F. J. Waldo, Mr. C. Herbert Smith, and Mr. Walter Schröder. Mr. Rigby Swift, in proposing the toast of "The Medico-Legal Society," said that the society was an evidence of the interdependence of two great professions. He recalled his early memories of the old-fashioned family doctor, who was not merely a doctor, but the true friend and confidential family adviser generally. As to the legal relations of medical men, he had almost invariably found the medical profession earnestly endeavouring to assist in the administration of justice. Of late, medical men had more than ever been engaged in the courts, especially under the Workmen's Compensation Act, and now they seemed likely to have still more official work under the Insurance Bill. There was no doubt that the doctors would earnestly coöperate in such a movement for the public good if only they were offered fair terms: so such terms must be inserted in the Bill as would allow them to retain their independence and afford them adequate remuneration. Sir John Tweedy, in replying, spoke of the growth of the society both in numbers and in importance. He earnestly wished the legal members a continuance of their prosperity, because, if the Insurance Bill passed in its present form, a large part of the medical profession would find their occupation gone, and they would have to look to their prosperous

legal brethren to pay the fees of the pious but impecunious doctor. Sir William Collins, in proposing "The Guests," said that both the critics and the supporters of the Bill felt that legislation was proceeding too quickly, for it was not a subject that lent itself to hustling. The society might prove of great use to the officers of the Crown by helping the discussion of the matter in mixed meetings of lawyers, medical men, and laymen. The discussion of the Bill made it clear that almost every detail involved a principle, and the fact that these principles had not been thoroughly threshed out by those affected rendered the ultimate form of the measure uncertain. Its too precipitate passage could result only in considerable resentment. Mr. C. Herbert Smith proposed the health of Sir John Tweedy, who, in replying, mentioned that the Royal College of Surgeons of England had acceded to the request of the society to put aside a part of its museum for a medico-legal museum, and he appealed to the members to present specimens, so that in time they might have a medico-legal museum that should rival the famous museum at Edinburgh.

THE RARITY OF TABES AND GENERAL PARALYSIS IN THE NEGRO.

THE rarity of the so-called parasyphilitic affections among members of the coloured races has often been commented on. Among the numerous peoples of Africa, black and brown alike, syphilis is very rife, but tabes, according to the evidence of many observers, is most infrequent. In the coloured races of the United States it is much less common in the negro than in the mulatto, and still less in the latter than in the white. In view of the almost universal prevalence of syphilis among negro races this peculiarity is the more striking. Neurologists and syphilographers are wont to assert that untreated syphilis is prone to terminate in systemic degenerations of the central nervous system, yet the temperament of the negro is such as to render most attempts at treatment of syphilis futile, if it is not neglected altogether. In spite of these facts, and notwithstanding that he is also addicted to alcohol, the negro is curiously immune, and we must suppose that he is protected by something native to his organism. Dr. E. M. Hummel of New Orleans, who has had abundant opportunity of observing the effects of syphilis in a coloured population, reports in a recent number of the *Journal of the American Medical Association* a case of tabes in a full-blooded negress, aged 27. The menses began at the age of 12 and were apparently normal. One and a half years later the patient, then a girl of 13½, bore a healthy child, who is living and well. A dead child was born 3½ years later, and a miscarriage occurred 2½ years subsequently. It seems obvious that between the age of 14 and 17 the patient acquired syphilis; in any case the cardinal symptoms of tabes were established three years before she came under observation. Dr. Hummel comments on the great rarity of the condition, and refers to a point which has often attracted his attention. The subjects of tabes are for the most part from a class of the community who work assiduously, both with mind and body, who are apt to allow the worries of life to impress them unduly, who, in a word, present temperamental and nervous defects that seem to exert a certain influence in lowering powers of resistance. But the negro is notoriously a child, and to this day, thanks to his primitive limitations, still enjoys what Dr. Hummel calls the "childlike euphoria of a care-free life." Another interesting and curious fact has been noted by Dr. Weisenburg of Philadelphia in this connexion. He has remarked that in his experience tabetics nearly always have blue or grey eyes, and otherwise blonde complexion. In the neighbourhood of New Orleans people of Latin descent, nearly all brunettes, predominate, and Dr. Hummel has found that they are less prone to tabes than blondes. If the observations are of any significance they may mean that constitutions associated with a degree of pigmentation of the skin are somehow less liable to the toxin of such a disease as tabes. Biometricians and Mendelians are now working alike on lines which may here assist the clinician.

BRITISH PHARMACEUTICAL CONFERENCE.

THE British Pharmaceutical Conference, which met this week at Portsmouth, is approaching the fiftieth year of its existence. Since it came into being 48 years ago the Conference has contributed very largely to the advancement of pharmaceutical science, and the character of the papers contributed at this week's meeting indicates that it continues to fulfil the useful purpose for which it was founded. The subjects, which were for the most part of a purely pharmaceutical nature, were treated in a practical and concise manner, there being an entire absence of those lengthy and inconclusive communications which sometimes occupy considerable time at meetings of this kind. The papers are alluded to in some detail elsewhere in this issue, but special attention may perhaps be usefully drawn to one or two of outstanding interest. The variability in the therapeutic value of thyroid preparations is frequently a source of disappointment to medical practitioners, and the suggestion that an iodine standard should be fixed will be welcomed. Another medicinal product which varies considerably in activity is extract of Indian hemp, and no doubt the compilers of the British Pharmacopœia will have their attention directed to the suggestion that the official process of preparing this product should be altered; for the difference in the value of the extracts on the market is certainly unfortunate both for the medical practitioner and his patient. The compilers of the Pharmacopœia will also find some suggestive material in the paper on Podophyllum Emodi; the Indian podophyllum has been recognised in the Indian Addendum, and the question is under consideration whether it should be included in the forthcoming edition of the Pharmacopœia. The paper on opium assay by two well-known collaborators constitutes a valuable addition to pharmaceutical literature, and we much hope that they will find time to continue their investigations of this important subject. The results of the analyses of diabetic foods certainly demonstrate the desirability of placing some kind of restriction on the sale of this class of foodstuffs. In addition to the discussions of scientific subjects, matters of a more general character such as the sale of secret remedies and the position of the pharmacist in relation to the National Insurance Bill were considered.

GENERAL SUBCUTANEOUS ŒDEMA AS A FAMILIAL AFFECTION.

THE series of cases of general subcutaneous œdema associated with diarrhœa occurring in one family, recorded by Dr. F. H. Edgeworth on p. 216 of THE LANCET of July 22nd, constitutes a remarkable, if not a unique, contribution to the literature of familial affections. Of six infants born of healthy parents, all but one have died in the first few weeks or months after birth with general œdema following upon diarrhœa. The surviving child, now 2½ years old, also suffered from slight diarrhœa and œdema of the face during the second and third months of his life. Two of the cases have been carefully observed by Dr. Edgeworth, who found no evidence of renal disease during life or post mortem, and in a third case observed by Dr. G. S. Page the urine was normal. In one of the cases there was some increase in the coagulation-time of the blood, as estimated by Wright's method. Dr. Edgeworth discusses the nature of his cases in his interesting paper. The

occurrence of nephritis was definitely excluded in the two cases which came to necropsy. He gives reasons against regarding them as examples of œdema neonatorum which seem to us convincing. He suggests that the immediate cause of the œdema in his cases may have been the action of poisons absorbed from the alimentary canal, but he makes the further suggestion that there may have been an inborn defect in the walls of the capillary blood-vessels, rendering them more susceptible to poisons circulating in the blood than the capillaries of normal individuals. The explanation sometimes given of functional or orthostatic albuminuria is somewhat similar—viz., that the kidney in these cases is more permeable to the protein molecule than normally, and that this permeability is more easily influenced by slighter causes. Dr. Edgeworth points out that his suggested explanation is capable of being extended to include certain other conditions of œdema of obscure nature, such as general dropsy of the fœtus, apart from anatomical defects in the placenta and fœtal organs, hereditary trophœdema or Milroy's disease, and also the susceptibility of some individuals to erythemata and urticaria. There can be no doubt that the careful recording of cases of familial diseases is bound eventually to enlarge our knowledge of many obscure conditions of inherited disease and defect, and Dr. Edgeworth's interesting note may serve to bring to light similar cases to his own. It will be interesting to know the future history of the surviving case, more especially as to whether attacks of diarrhœa are associated with œdema in this child.

BRITISH DENTAL ASSOCIATION: ANNUAL MEETING.

FOR three interesting reasons the annual meeting of the British Dental Association, to be held next week at the University of London, South Kensington, will have special importance. It will be the first dental gathering that has taken place at the University; the attendance will certainly reach the highest figure on record, as the membership of the Association has increased to over 2000; and this year, by a happy coincidence, the International Dental Federation is also meeting in London. Both the Federation and the Association will have Mr. W. B. Paterson, F.R.C.S., L.D.S., for President. Some distinguished foreign dentists from America and the continent are taking part in the opening session of the International Dental Federation at the Royal College of Surgeons of England on Tuesday, August 1st, when they will be welcomed by the President, Sir Henry T. Butlin. A banquet follows in the evening at the Hotel Cecil. On Wednesday Professor Jessen of Strasburg presides over the Hygiene Commission, and Dr. E. C. Kirk of Philadelphia over the Education Commission, both meetings being at the University. The British Dental Association begins its meeting with a reception and dance given by the Metropolitan branch at the Hotel Cecil on Wednesday night. On Thursday the annual meeting of members takes place at the University, when the new President (Mr. Paterson) and some honorary members will be inducted. Thirteen papers will be discussed on Friday, including contributions on School Dental Treatment and its Results, by Mr. A. E. Baker, Mr. C. E. Wallis, and Mr. G. Cunningham (Cambridge); Bread-stuffs and the Experimental Production of Dental Caries, by Mr. A. Hopewell-Smith; and Tuberculosis and its Bearing on Dentistry, by Dr. Noel D. Bardswell, medical superintendent of the King Edward VII. Sanatorium at Midhurst. Some 27 demonstrations will occupy Saturday morning and afternoon, and a number of clinical cases will be on view. A museum, illustrating affections of the periodontal membranes, will be arranged in the entrance hall of the University. On Thursday the annual dinner of the Association will take place at the Hotel Cecil, and on Friday a conversazione will be held at the Royal College of Surgeons of England. Lunch will be provided each day in a marquee in the University quadrangle. The foreign visitors and the members of the Federation will be the guests of the Association at its meetings and social functions.

SCLEROTIC OR "WOODEN" THYROIDITIS: RIEDEL'S DISEASE.

IN 1896 Riedel published a description of two cases of a condition to which he gave the name "eisenharte strumitis," and in subsequent years observations of a similar nature were recorded by the same writer and by others, bringing the total number of cases up to 13. To these three more have been added by MM. X. Delore and H. Alamartine, together with a summary of the whole subject, in a paper in the *Revue de Chirurgie* of July 10th From this summary it appears that the clinical picture is remarkably like that of thyroid cancer, though in one of Riedel's cases a child of four was attacked. The commonest age, however, is during the fourth decade. More than half the recorded cases have been in men. A distinctive feature is the rapid evolution of the disease. In a few months, or even weeks, a tumour develops which produces serious effects by compression of the trachea and the recurrent laryngeal nerves; the laryngeal palsy is accompanied by dangerous paroxysms of dyspnœa. On the other hand, it is unusual to find any evidence of pressure on the sympathetic nerves or upon the œsophagus. The tumour is diffuse, involving the whole gland; it is extraordinarily hard and firmly fixed to surrounding structures. Its surface is smooth and does not adhere to the skin. The neighbouring lymph-glands do not show any striking enlargement. To the naked eye the diseased area appears whitish and homogeneous; it is very hard to cut. Microscopically nothing is found except a free formation of dense fibrous tissue of an inflammatory type; not even at the edge, where the disease is binding the thyroid gland to the neighbouring muscles and fasciæ, is there the least sign of malignant disease. It is possible that in some of the recorded cases either tuberculosis or syphilis has played a part; but in the majority of instances no definite cause could be named. Fortunately, this distressing disease seems to be amenable to treatment. Several cases have been successfully treated by thyroidectomy; but this is not to be advised, as the free adhesion to surrounding tissues greatly impedes the operator and exposes the patient to the dangers of hæmorrhage. Liberation of the trachea by cuneiform resection of the thyroid isthmus gives speedy relief to the symptoms, and is usually followed by a rapid disappearance of the disease. If there are no severe pressure symptoms milder measures may suffice; and especially radiotherapy should be tried, for the X rays appear to have an almost specifically curative effect.

THE London County Council on July 25th resolved: "That Section 55 of the Public Health (London) Act, 1891, with respect to the notification of infectious disease shall apply in the administrative county up to and including March 12th, 1912, to acute polio-myelitis or acute polio-encephalitis." The Public Health Committee informed the Council that the disease known by these names had engaged attention in recent years in Europe, especially in Norway and Germany, as well as in the great cities of the United States of America. The disease, which occurred principally among children, proved fatal in about 11 or 12 per cent. of those attacked, and was responsible for the production

among those who survived of infantile paralysis. In the northern hemisphere occurrence of the disease was noticeable mostly in the summer months, and as in some instances multiple attacks had occurred in the same households, schools, or streets, these had been attributed to infection from one person to another. Early this year the Royal College of Physicians of London asked the Council to make the disease notifiable, and the Public Health Committee thought the request should be acceded to, as there was a possibility of cerebro-spinal meningitis being mistaken for polio-myelitis.

THE REORGANISATION OF PUBLIC HEALTH ADMINISTRATION IN THE COUNTY OF LONDON.

THE General Purposes Committee this week reported to the London County Council on the subject of the reorganisation of medical inspection and treatment and school medical work generally, and we are glad to observe that the committee declared itself strongly in favour of the policy adumbrated in THE LANCET on several occasions—viz., of coördinating all this work in the existing public health administration, instead of, as the Education Committee proposed, placing it under the control of a layman—the education officer, Mr. Blair.[1] The proposed reorganisation will hasten the retirement of Sir Shirley Murphy, but the Council will retain his services in a consultative capacity for at least two years.

By way of preface the General Purposes Committee remarked that from among the otherwise conflicting views held on this subject by the committees affected, one fact clearly emerged, and that was that the present arrangement by which medical inspection was dealt with in the Public Health Department and medical treatment in the education officer's department could continue no longer. The question, therefore, resolved itself into the fundamental one, Should the whole of the work be entrusted to the department which dealt with medical work and had for its chief officer a medical man, or should it be included in the department of the education officer. On this point suggestions were invited from the officers concerned. The principle underlying the education officer's scheme was expressed by him when he suggested that one officer should be responsible to the Education Committee for the general organisation of every branch of the education service. The principle upon which the medical officer's scheme proceeded was that upon which the organisation of the whole of the Council's work had been based hitherto—viz., that all work executed by the Council, whether administrative or professional, which was involved in the exercise of a particular profession, should be done in the department and under the direction of the professional officer concerned. Thus architectural work in the schools was associated with the other architectural work of the Council and placed under the control of the architect. Education financial work was associated with the other financial work of the Council; education stores came from the General Stores Department; education legal work was dealt with by the Council's solicitor, and so on. On first principles, therefore, it was evident that a natural and proper course was for medical inspection and treatment to be administered in the Public Health Department, in conjunction with the other medical work of the Council, under the control of the professional officer at the head of the medical department. The General Purposes Committee dealt *seriatim* with the principal arguments of the Education Committee in favour of the contrary policy. The Education Committee thought that having regard to the existence of 29 sanitary authorities in London there would be difficulty in placing the school medical work under the county medical officer of health, and that what was especially needed was the coöperation of the 29 local medical officers of health. The General Purposes Committee did not appreciate this difficulty, holding that the desired coöperation was more likely to be secured by the Public Health Department, which was constantly in touch with the local medical officers of health. The Education Committee urged that the school medical work was closely associated with the general activities of the schools and the general machinery of education administration. The General Purposes Committee replied that this was no doubt the case, and whatever system was set up the coöperation of teachers and others would be an important element. There was no reason why such coöperation should not be given to the Public Health Department.

[1] THE LANCET, March 4th, p. 627, and 18th, p. 760.

The Drawbacks to Lay Control.

Special difficulties of organisation and administration were likely, in the opinion of the General Purposes Committee, to arise from the adoption of the Education Committee's proposal. This appeared to be recognised by the inclusion of provisions of an unusual nature—viz., that although the work of the medical officer (education) should be placed under the control of the education officer the former should have the right of access to subcommittees. The General Purposes Committee regarded such an arrangement with considerable apprehension. Apparently it was not intended that medical men should supervise the administrative details of school medical work, although such work must depend to a large degree upon their expert advice. Further, the system under which both the education officer and the medical officer (education) would report upon school medical work would be likely to lead to one of two results—the professional but subordinate officer, feeling the difficulty of his position, would either qualify his reports so as to meet the views of his superior though non-professional head, or he would maintain his views with the result that conflicting advice would be given from the same department. Should a decision be given in favour of the views of the subordinate officer a difficult situation might be created and the responsibility of the head of the department be weakened. It would be impossible under such an arrangement to fix the responsibility for action of any kind, and impossible for committees and for the Council to depend upon receiving the unfettered opinion of the professional officer upon the results of his own work or upon the estimated results of new proposals. Under the Council's system of organisation into departments these difficulties were avoided, as there was only one responsible head, and he was rightly held responsible, not only for the advice he gave, but for the results of following it. His professional reputation was the foundation upon which the Council relied for the best possible advice on matters within his province, and this system had worked with uniform success. It should be pointed out that placing medical inspection and treatment in the education officer's department would involve also the transfer to that department of the other duties hitherto performed by the medical officer (education), including the work of dealing with epidemic and infectious diseases in the schools. It was evident that in this matter prompt administrative action was of first importance, and that the responsibility for such action and its results could rest only with a medical man. In all the circumstances the committee did not think the case could be regarded as so exceptional as to justify such an important departure from accepted policy as the placing of medical expert and administrative work in the department of a lay officer. The often expressed desire of the Board of Education that the school medical officer should be responsible for the medical work could not possibly be secured under such a system, and it was at least doubtful if the Board could approve the appointment as school medical officer of an officer the arrangements for whose professional work were made by another officer entirely independent of him.

Reorganisation of the Public Health Department.

On the fundamental grounds of organisation the proper course was to place medical inspection and treatment of school children under the direction of the county medical officer of health. It was a sound principle that the same health organisation should deal with the individual before, during, and after school age, and that the department which was concerned with limiting the spread of infectious and epidemic diseases in the community should not be precluded from dealing with such infectious diseases in children, whether in school or at home. It followed that the county medical officer of health would exercise supervision over the school medical work generally. This would necessitate a reorganisation of the Public Health Department, and in considering this aspect of the question the General Purposes Committee had had regard to the fact that Sir Shirley Murphy, the

county medical officer of health, would retire under the age limit in less than two years' time. Seeing that the present proposals involved for the Council's medical officer a much enlarged responsibility, and entailed on him the serious and protracted task of amalgamating and coördinating the previously divided functions already referred to, the committee viewed with apprehension the nearness of the retirement of Sir Shirley Murphy. A period of less than two years in which to consolidate, harmonise, and leave in working order functions hitherto divided was all too short for any man, and to call on the present medical officer to undertake the responsibilities, creative and administrative, that were involved, and this on the eve of his departure, would be out of the question unless his retirement were almost indefinitely deferred. The committee had conferred with Sir Shirley Murphy on the subject in all its bearings, and he had stated his desire to place himself in the hands of the Council, so that the reorganisation of the Council's medical work might be effected under the best possible conditions.

The Position of Sir Shirley Murphy.

After careful consideration the committee advised the Council to arrange for Sir Shirley Murphy to relinquish duty as chief medical officer of the county at a date not later than Dec. 31st, 1911, while retaining his services in a consultative capacity for a further period, so that his successor should have the advantage of his large experience, particularly in the details of medical administration. Sir Shirley Murphy entered the London County Council service in 1889, being the first chief officer appointed by the Council and the first medical officer of the County of London. His services to London, said the General Purposes Committee, were in no need of eulogy; the decline in the figures of the death-rate during the administration of the Council testified to the fruitfulness of his labours, while the honour of knighthood conferred upon him in 1904 recorded the high regard in which Sir Shirley Murphy's work in the cause of public health was held. The committee was sure the Council would feel great regret at Sir Shirley Murphy's retirement and would desire to grant him the maximum retiring allowance. Sir Shirley Murphy had served the Council for 22 years, and if his service had come within the Superannuation (Metropolis) Act, 1866, the Council could, by adding ten years to his service, have granted him an allowance of 32 sixtieths of his salary. The committee therefore proposed that the Council should supplement his retiring allowance by such an amount as would bring the allowance up to £666 13*s.* 4*d.* a year—viz., 32 sixtieths of his salary of £1250, and retain his services in a consultative capacity for two years from the date of his retirement at such a remuneration as would not exceed, with the retiring allowance, his present salary. Steps would be taken as soon as possible to fuse the work of medical inspection and treatment in one department under the medical officer before the appointment of the new medical officer.

In conclusion, the committee referred to the anxiety expressed by the Board of Education to know at once the Council's proposals to meet with the present situation. If the present proposal was adopted and laid before the Board in its entirety and followed up with the detailed scheme prepared by the Education Committee for carrying out school medical inspection and treatment,[2] the Board would see that the Council had dealt with the matter in a strong and effective way, and would agree, the committee thought, to accept the Council's proposals as the proper method of organising school medical work. The committee promised to follow its present report with another next week detailing the arrangements to be made consequent on the retirement of Sir Shirley Murphy.

At the meeting of the Council it was evident there was general agreement upon the proposals of the General Purposes Committee and discussion was very short.

An amendment was moved on behalf of the Education Committee that the proposals of the General Purposes Committee should not take effect until Jan. 1st, 1912. It was urged that the Education Committee was under a pledge to the Board of Education to make the scheme of medical treatment effective by October next. If between that date and Christmas the whole of the administrative work was transferred to another department it would seriously handicap the Education Committee in the effort to carry out the wishes of the Board of Education.

The amendment was agreed to and the recommendations of the General Purposes Committee were then approved.

[2] THE LANCET, July 22nd, p. 246.

THE NATIONAL ASSOCIATION FOR THE PREVENTION OF CONSUMPTION.

THE annual conference of this association took place at the Caxton Hall, Westminster, on July 19th, 20th, and 21st.

Among those present at the opening, when Sir WILLIAM YOUNGER presided, were the President of the Local Government Board (Mr. John Burns), Sir Thomas Barlow, Sir William Osler, Professor Sims Woodhead, Dr. A. Newsholme, Dr. T. D. Acland, Dr. E. W. Hope, Dr. J. E. Squire, Dr. James Kerr, Dr. J. Niven, Dr. J. J. Perkins (honorary secretary of the association), Sir W. Treloar, Mr. Waldorf Astor, M.P., Mr. G. Harwood, M.P., Rev. P. Clementi Smith, Miss MacGaw, and a number of delegates from local authorities and institutions all over the country.

Sir WILLIAM YOUNGER first read the following telegram from the King:—

> As patron of the National Association for the Prevention of Consumption and Other Forms of Tuberculosis, I congratulate all who will take part in the annual conference which assembles to-morrow. I sympathise deeply with the association's work, so far-reaching in its influence upon the future of the human race. I note with interest the important questions to be dealt with at the conference, and the names of the eminent authorities by whom the meetings will be conducted and addressed.

Opening of the Conference by Mr. John Burns.

Mr. JOHN BURNS expressed his pleasure in attending to open this useful, practical, and human conference, which brought a message of hope to an army of 300,000 people in these kingdoms suffering from tuberculosis in one or another of its forms. The "man in the street" was now determined to coöperate with the medical officer of health, the town and county council, and the private practitioner in this important work. Estimated by its victims tuberculosis in all its forms was a declining disease, and its annihilation ought to be effected in 25 to 30 years till it became only a memory, just as typhus, leprosy, and the plague were now. In ten years consumption had diminished in England and Wales 19 per cent., in Scotland 24 per cent., in Ireland 24 per cent., in Germany 18 per cent., in London 30 per cent., in Berlin 24 per cent., and in Paris only 3 per cent. In 50 years tuberculosis had declined 50 per cent. for all ages, while for the period from birth up to 25 years it had declined 70 per cent. These were encouraging figures. It was interesting to note that the general death-rate also had declined 26 per cent.—27 per cent. in London—and the infant mortality 30 per cent. in the same period. Another significant thing was that coincidently with this decline in the tuberculosis and general death-rates and in infant mortality the national drink bill had diminished from £4 12*s.* to £3 8*s.* 11*d.* per head—a diminution of 25 per cent. in the consumption of alcoholic beverages. The decline of consumption was concurrent with increasing sobriety, better housing, growing education, and the social and moral elevation of the people. To the ratepayer Mr. Burns pointed out that £160,000,000 were paid every year for health and social service. Out of 4000 Poor-law consumptives in Liverpool, 60 per cent. were paupers because they were consumptive. Pauperism and tuberculosis acted and reacted on each other, tubercle being the pauperiser, and pauperism the seed plot of tubercle. He gave a simple illustration as to the value of remedies under the existing law quietly enforced. In 1875 the death-rate in the London garrison of the Guards was 20 4 per 1000 among strong, young, presumably healthy men. To-day it was not more than 3 per 1000, or seven times less. The same barracks were in use, but they were cleaner; the windows were more open, and the soldier had adopted the increasing sobriety of the nation, and this combination had brought about the reduction. Similar figures could be shown for the navy and other sections of society. Another factor in the reduction was high wages if accompanied by wise spending. Mr. Burns warned his hearers against dogmatising on any special means of combating tuberculosis. Much could be done by applying some

of the new methods, but the good could be increased by exhausting all the agencies calculated to secure the object they all had in view. Mr. Burns then dealt with the great advance made by the local authorities in regard to the notification of cases of tuberculosis from Poor-law institutions and hospitals, and said that the duty incumbent on them was clear in view of the facts that from 30 to 50 per cent. of the cost and numbers of pauperism was due to sickness, most of which was consumption, that 75 per cent. of the cripples had a tuberculous origin, and that 90 per cent. of hunchbacks, 75 per cent. of the scrofulous, and 50 per cent. of those who had convulsions were inflicted with the disease. The Local Government Board was authorising local authorities to establish dispensaries, to purchase cheap and portable shelters for use in yards, to procure and distribute literature. Local authorities were more active in enforcing the unsound food regulations, and the milk and dairy trade had been vastly levelled up. The Royal Commission, after ten years of unpaid, disinterested, self-sacrificing, painstaking research, had issued its fourth and final report, which justified the demand for new milk legislation. A Milk Bill was essential and urgent, and before many months were over the milk and dairy industry of the country must be placed on a clean, sound, healthy, and permanent basis. Mr. Burns referred to the funds and income to be provided under the Insurance Bill for the establishment and upkeep of sanatoriums, and was confident that the money would be expended wisely and well. He did not doubt that some local authorities would accept the Chancellor's offer of half the cost for the wives and children of insured persons in sanatoriums, if the local authorities would bear the other half, and that others would soon follow.

Professor SIMS WOODHEAD advocated the inclusion of hygiene in the curriculum of secondary as well as elementary schools. He commended exhibitions and lectures and caravans, and the work of district nurses and health visits as educational methods, and said that good educational work had been done by the Royal Commission. There was sure to be criticism of the latter, but such criticism only showed that the public was becoming alive to the subject. He dwelt on the influence of alcoholism as a predisposing factor. But there was no universal panacea for the disease; the educational crusade must be a broad and common-sense one, not too insistent on any one method, but covering all.

Dr. F. C. SHRUBSALL, assistant school medical officer of the London County Council, in a paper on

The Place of the School in the Campaign against Tuberculosis,

pointed out that in the early educational stages the work against tuberculosis consisted in the inculcation of personal hygiene. There might come a time when a bath would form part of every elementary school in large towns, as it did in Germany, Holland, and Scandinavia. One bath was worth a hundred lectures, and cleanliness of clothing would follow cleanliness of body. Next winter the Council would provide a course of lectures for teachers, showing how they could assist the antituberculosis campaign. Strict isolation of sufferers might reduce the prevalence, but it might conceivably lessen the natural resistance of the community. The most effective guard was to cut down the modes of dissemination, which really meant universal cleanliness. Public opinion, by a rigid standard, could diminish tuberculosis and those minor affections that paved the way for it.

Sir WILLIAM YOUNGER, in a paper on

Tuberculosis Exhibitions and Caravans,

spoke of the value of travelling caravan exhibitions, such as that in his own county of Dumfriesshire, which with the lectures to children and adults did much good. The visit of the caravan also might induce property owners to remedy defects in their properties that were injurious to health.

Mrs. HOWARD MARSH, in a paper on

The District Nurse and the Health Visitor,

described the work of the Cambridge branch of the League for Physical Education and Improvement in Health Visitation. Those mothers who had followed the visitors' course were allowed to enter their children to compete in an annual baby show. The prizes were a Savings Bank book in which a shilling or two had been placed to the credit of the best babies in each of four sections—viz., weight, firmness of flesh, thickness of bone, general well-being—with mugs as consolation prizes for the unsuccessful. She insisted on the necessity of character, adequate training, interest in the work, and a sense of humour for health visitors.

Mr. J. LISTER STEAD, secretary of the Ancient Order of Foresters, in a paper on

Propaganda among the Friendly Societies and Trade and other Organisations of the Working Classes,

insisted on the close connexion between poverty and tuberculosis. The fact that at least that part of the Insurance Bill dealing with tuberculosis had received general approval was a gratifying recognition of a greater national responsibility in a matter which up to now had been left to private enterprise. The statistics of the Foresters showed that in a period of five years 15·23 per cent. of all deaths were due to phthisis, while those of the Hearts of Oak showed that the consumptive members in a period of ten years received average sick pay 75 per cent. in excess of that to all other members.

At the afternoon session of Wednesday, July 19th, Sir WILLIAM OSLER presided.

The Value of Family Inspection and of Notification.

Dr. R. W. PHILIP of Edinburgh said that tuberculosis in the adult was in large part a development from tuberculosis in the child. The need was for early detection, and the teaching of hygiene enabled every intelligent person to be in some degree a detective officer. Medical students needed better training in physical and bacteriological methods. He urged a revision of the methods of out-patient departments, and said that the whole family should always be inspected whenever a case of tuberculosis was discovered. In Edinburgh no inconvenience had arisen from compulsory notification, and this system had extended in Scotland from eight authorities in 1907 to 74 in 1910, and more than half the notifications in Edinburgh came through the dispensaries. He commended the plan of linking the London dispensaries together through the intermediary of a central council.

Dr. CECIL WALL, assistant physician to the London and Brompton Hospitals, read a paper on

The Hospital Out-patient Department as a Machine for the Detection of Pulmonary Tuberculosis,

and referred to the effect on the hospitals if the Insurance Bill became law. The only members of the community then remaining unprovided with medical attendance would be children under the school age, those between 14 and 16 who were unemployed, unemployed women, and people between 65 and 70 years. The hospital out-patient departments would retain only consultative functions, and he suggested that each out-patient department should be constituted a consulting centre for a definite district for the diagnosis and treatment of tuberculosis.

Dr. JAMES NIVEN described the work done in Manchester. He urged compulsory notification, additional sanatoriums, and the placing of funds at the disposition of the medical officer of health. If the sanatorium benefits under the Insurance Bill were to be separately administered the work would be impaired. Sanatorium benefit under the Bill should depend on notification having been made to the medical officer of health.

Dr. HALLIDAY G. SUTHERLAND, of St. Marylebone Dispensary for Consumption, in a paper on

The Tuberculosis Dispensary,

said that the dispensary formed a centre from which the majority of consumptives were treated—a clearing-house through which suitable cases could be distributed among open-air schools, sanatoriums, farm colonies, and hospitals for advanced cases, and a base from which organised search could be made for early and undiagnosed cases.

Other speakers were Miss M. E. BIBBY, Miss HETTY COWEN, and Dr. E. W. HOPE.

On July 20th Sir RICHARD DOUGLAS POWELL presided at the morning session. He said that the cases with which they had to deal were of two classes—the annual crop of new cases and the residuum of tuberculous population. By dealing with the first successfully the second would cease to be recruited and would die out. They had to learn what was best for each group of cases. Meanwhile, acquired and hereditary immunity had probably long been lessening the proclivity to tuberculosis in civilised communities.

Sir WILLIAM OSLER, in an introductory address, spoke of the universal diffusion of tuberculosis. What was necessary was education, not only of the public, but of the profession.

There was too much carelessness in examination among doctors, and that would tend to increase under that worst of all systems that was to be forced upon the profession—contract practice. The tuberculous patient needed to be under strict control by a capable doctor and a good nurse, and had to work out his own salvation with courage and hope. Hardly 10 per cent. of the cases could be treated in sanatoriums, so the home treatment must be developed. He urged closer association of the tuberculosis dispensaries with the general hospitals, whose duty it was to take up the work with their laboratory facilities and their social service agencies. He dreaded the group of men whose whole work, knowledge, and life were spent in the tuberculosis dispensary; they must needs become narrow. A closer study of tuberculin was needed, for those who used it carefully and persistently had excellent results, which showed that properly used in suitable cases it had an undoubted efficacy. In a few years it would be better known to what extent and in what manner this remedy could be best used.

Dr. ARTHUR LATHAM, in a paper on

The Value of the Sanatorium Treatment,

said that the public had not grasped that in many cases, owing to the severity of the disease, sanatorium treatment must be useless, in a few cases actually harmful, and in many others need not be carried out in an institution. The cardinal factor was not fresh air and food, important as these were, but the constant and skilled regulation of the rest and exercise prescribed from day to day. Sir Almroth Wright's work had disclosed the reason for this fact, which had been clinically apprehended by Bremer and Walther. Movement determined the quantity of blood and lymph sent through the lung, and on this depended the amount of poison swept into the general circulation. It was the question of how much of this poison the defensive forces were adequate to cope with that regulated the amount of exercise allowable. Early sanatorium treatment gave more control over the defensive forces, so that in a large proportion of cases a man's capacity for work could be restored. This, added to the education that made him cease to be a danger to the community, was all the argument needed to support the claims of the sanatorium. That sanatorium treatment had not met with universal acceptance was due to the fact that many existing sanatoriums were inefficient, to the improper idea obtaining in some quarters that sanatorium treatment was sufficient in itself and a certain cure for consumption, and to the fact that hitherto sanatoriums had been too costly. Nowadays, apart from the land the initial cost should not exceed £100 a bed and the upkeep should be less than 25*s.* a week. The difficulty arising from the maintenance of the family in the absence of the breadwinner should be swept away by intelligent administration of the Insurance Bill.

Dr. JANE WALKER, medical superintendent of the East Anglian Sanatorium, in a paper on

The Sanatorium Treatment of Consumption,

said that most consumptives, even in the earliest stages, took far too little food, and that of unsuitable kinds. She emphasised the importance of adequate food, the overcoming of the dread of a draught, the importance of rest, and the inestimable value of work properly applied; she laid stress on walking. Work was not only physically useful but was a corrective to boredom, which was depressing.

Dr. MARCUS S. PATERSON discussed

The Educative Value of Sanatoria,

as also did Dr. J. J. PERKINS. The last-named described the method evolved by Dr. Arthur Newsholme at Brighton of utilising a block in the isolation hospital for such consumptives as, while still able to work, were advanced to a stage where it was impossible to obtain for them a lasting cure. For such cases some measure of treatment was necessary for them from time to time as their strength failed with continued work, and a short period of rest, feeding, and change of surroundings provided all the improvement possible. Such patients were ideal subjects for home treatment, but they would be able to carry out the necessary rule of life at home only if it had been thoroughly drilled into them in a course of sanatorium training. In such cases the educative value was paramount, the few weeks' treatment only incidental. After the patient's return home he was kept under surveillance by a band of workers.

Dr. J. EDWARD SQUIRE read a paper on

The Home Treatment of Consumptives under the National Insurance Bill.

He pointed out that it would be practically impossible to treat all cases of consumption in institutions during the whole period for which treatment was required. Few experienced people now expected arrest of the disease from three months' treatment, so that treatment must be continued at home under medical supervision. There must, therefore, always be consumptives in all stages of the disease needing to be treated at home. For these the National Insurance Bill made no provision beyond free medical attendance. It offered no supervision other than what obtained in some places for all, including the uninsured, on notification. The dispensary system provided the most useful and satisfactory provision for home treatment and supervision, but the Insurance Bill gave no such advantage. For the advanced consumptive the 10*s.* benefit would not allow of so keeping his house as to aid recovery or prevent the infection of others. There was no power to insist on the removal of a consumptive from a house where neglect of necessary precautions was a menace to others. When the State found part of the insurance funds it ought to be able to take necessary steps to prevent infection of those who were, or would be, insured at its expense. Sanatorium benefits under the Bill should be enlarged to include some of the requirements for home treatment, the loan of shelters for outdoor sleeping, the means of having a separate room, or at least a separate bed, extra milk, or suitable food. It was much to be desired that the National Insurance Bill should allow further consideration to the needs of consumptives who must be treated at home.

Dr. J. F. J. SYKES, medical officer of St. Pancras, read a paper on

The Relationship of Philanthropic and Municipal Agencies in Diagnosis and the Treatment of Persons under 16 Years of Age,

in which he said it was in the search for a diagnosis of disease in its early and premonitory stage that the coöperation of philanthropic and municipal agencies was most valuable. He suggested that hospitals and dispensaries should undertake to diagnose and report on the condition of contacts sent by health visitors. With regard to children under 16 the Poor-law guardians and the London County Council might take action under Section 34 of the Children Act of 1908 to commit such children if neglected to the care of some fit person or society for the protection of children, but the very bodies having executive duties in regard to consumptives—viz., the metropolitan borough councils—were purposely omitted from the Act. In a roundabout way their medical officers could search out ailing persons under 16, and report any neglect to the guardians, so as to obtain for them proper home or institutional treatment.

In the afternoon Dr. LATHAM presided.

Dr. RALPH P. WILLIAMS, school medical officer of health of Sheffield, contributed a paper on

Open-air Recovery Schools,

in which he said that about 7 per cent. of elementary school children were mentally dull, and in about half the mental dulness was due to physical defects, including early tuberculosis and conditions predisposing to tuberculosis. He described the Sheffield open-air school for such cases (which had resulted at a cost of £700 from the conversion of a disused elementary school), its staff, selection of children, their condition on admission, treatment of the teeth, feeding, milk-supply, personal hygiene, rest, shower baths, and the costs of maintenance. The results, as estimated by the examination of the children in October, 1910, were: cured, 44; improved, 51; in the same condition, 3. The open-air school was valuable for its educative influence on parents, teachers, and children; in providing education for those too delicate for the regular schools; in leading to the placing of simpler schools in suburbs rather than massive buildings in cities, and in taking classes in the playgrounds and stimulating nature rambles, as a means for the treatment of anæmia, malnutrition, and the pretuberculous stage. Schools of this type should be constructed to

accommodate at least 2½ per cent. of the elementary school population.

Miss MCGAW, in a paper on

Tuberculosis Schools,

said that the amount of tuberculosis among school children was estimated at from 5 to 3 per cent., but that was probably under the mark; for medical inspection of schools, as at present practised, was useless, as owing to shortness of time a sufficiently detailed examination to detect the early signs of tuberculosis could not be made, and children under 8 were merely inspected, not examined, unless they were thought to be ill. She spoke of the excellent results of the Edinburgh Special Antituberculosis School, and said that under the Elementary Education Act (Defective and Epileptic Children), 1899, the education authority had power to establish such schools. She urged the need of organising such schools in relation to some antituberculosis institution, so that close medical supervision might be available, with medical supervision of the home and the direction of the choice of occupation when school was over, in regard to the physical condition of the child. All schools should be open-air schools—i.e., they should all open their windows.

Dr. A. MAXWELL WILLIAMSON, medical officer of health of Edinburgh, in a paper on

Advanced Cases and Segregation,

pointed out that it was hopeless to talk of segregation until the essential preliminaries of notification, the establishment of sanatoriums for early cases, and dispensaries devoted to treatment and prevention had been established. He described what had been done in Edinburgh by the use of a pavilion of the infectious disease hospital for segregating late cases. Prior to the establishment of this hospital in 1905, 73 per cent. of deaths from phthisis occurred in the homes of the patients, 14 per cent. in the parish hospital, and 13 per cent. in other institutions. Four years later only 51 per cent. died in their homes, 20 per cent. in the city's hospital, 20 per cent. in the parish hospital, and only 9 per cent. in other institutions. He urged the rendering such hospitals markedly attractive to overcome the prejudice against them.

At the morning session on July 21st

Mr. C. S. LOCH, secretary of the Charity Organisation Society, read a paper on

The After-care of Patients.

He cited a series of cases to show the many factors that entered into the after-care. One must work through local agencies with comparatively small areas. Treatment without visiting would effect little. The establishment of dispensaries would aid in detection of contact cases. He criticised the proposed method of working of the sanatorium benefit in the Insurance Bill, saying that as the Bill stands, a large sum is to be contributed for sanatoriums, but that no suitable means were suggested to utilise the sanatorium properly from the point of view of the family needs in long and continuous illness. The cases he had adduced showed that some such provision should be made.

Dr. H. W. MCCONNEL read a paper on the same subject, in which he said that after-care was mainly dependent on individual effort acting in individual cases, and there was a great danger in sanatoriums supported by State funds that this individuality of the workers would be checked; that private interest and work would be superseded by officialism, which would be more expensive and less effective. The working patient scheme, whereby patients were employed in and about the sanatoriums for a small wage, would be hampered, because these workers would have to be insured, as the Bill stood, and the sanatoriums would have to pay the insurance. These difficulties might possibly be removed by working the State-paid sanatoriums through existing sanatorium machinery, and so keeping its individuality, and freeing all working patients where work is part of their treatment from the action of the Bill.

The rest of this session was given up to general discussion.

Mr. WALDORF ASTOR, M.P., read a paper on

The Economic Cost to the Community of Tuberculosis.

He referred to the well-known figures given in "The Conquest of Consumption" by Dr. A. Latham and Mr. G. H. Garland, and to the records of the German Imperial Office quoted by the Chancellor of the Exchequer in the House of Commons, and declared that with these and similar figures before us it is clear that the cost of sanatorium treatment, provided that only suitable cases are selected, would be repaid over and over again by saving in disablement benefits.

Dr. NATHAN RAW read a paper on

The Use of Existing Accommodation in Dealing with Tuberculosis,

in which he paid a complimentary tribute to Mr. Lloyd George's clauses with regard to the treatment of consumption in the National Insurance Bill. Dr. Raw advocated the taking over of existing institutions, such as small-pox hospitals, workhouses, and portions of fever hospitals, which are no longer required for the purposes for which they were constructed, and so to provide treatment for tuberculosis patients. In this way, a very large number of beds would be available throughout the country. Comparatively few cases, in his opinion, will receive any material benefit by such institutional treatment, but nevertheless the provision of large numbers of sanatoriums throughout the country will do more than anything else to stamp out the disease from our midst. Dr. Raw suggested that such sanatoriums should be divided into four groups: (1) For early cases, with a view to cure; (2) farm and industrial institutions for arresting the disease; (3) sanatoriums for advanced and hopeless cases; and (4) open-air schools and sanatoriums for children. He regarded the third group as by far the most important, and that the transfer to them of advanced cases should be compulsory, and that they should be constructed of the simplest materials which can be readily disinfected or destroyed.

Mr. ERNEST J. SCHUSTER, LL.D., read an interesting paper on this critical question:—

Will National Health Insurance Ensure National Health?

In a close *résumé* of the proposals under the National Health Insurance Bill, which are intended to affect the general hygiene conditions of the country, he found many of the proposed measures to regulate the general conditions of public health only of problematical value. With the exception of the case of excessive sickness, where inquiry is valuable, the proceedings under the Bill are likely, he thinks, to create an expectation which would probably not be fulfilled, and further, that the measures affecting the insured persons individually will not benefit national health to any appreciable extent unless they are largely supplemented by voluntary agencies. The importance of maintaining these agencies and supporting them with all possible energy by the side of any system of State insurance which may be adopted cannot be sufficiently accentuated and impressed upon the public.

IMPERIAL CANCER RESEARCH FUND.

THE annual meeting of the General Committee of the Imperial Cancer Research Fund was held on July 20th at the Royal College of Surgeons of England, the DUKE OF BEDFORD, K.G., the President, being in the chair. Amongst those present were Sir William Church, Sir Thomas Barlow, Sir Henry Butlin, Sir R. Douglas Powell, Sir John Tweedy, Sir Henry Morris, Sir Henry Howse, Sir John McFadyean, Sir Francis Lovell, C.M.G., Mr. Edmund Owen, Dr. Sidney Martin, Dr. F. W. Andrewes, Dr. T. H. Craig Stevenson, Mr. S. Forrest Cowell (secretary of the Royal College of Surgeons of England), Dr. J. A. Murray, Dr. W. H. Woglom, Mr. R. Clement Lucas, Lady Meiklejohn, Miss D. S. Coode, Dr. E. F. Bashford (general superintendent), and Mr. F. G. Hallett (secretary).

The adoption of the report was moved by Sir WILLIAM CHURCH in a speech which was a very able summary of the main points of the

NINTH ANNUAL REPORT.

Report of the Executive Committee.

The ninth annual meeting of the General Committee of the Imperial Cancer Research Fund was held at the Royal College of Surgeons on July 20th last, when the chair was taken by the Right Hon. A. J. BALFOUR, M.P. Sir WILLIAM CHURCH, Bart., K.C.B., chairman of the Executive Committee, presented the annual report, which was adopted. On the motion of Sir WILLIAM CHURCH, Bart., seconded by Sir HENRY MORRIS, Bart., His Grace the Duke of BEDFORD, K.G., was unanimously elected President of the Fund. Mr. BALFOUR, in moving a vote of thanks to the Chairman and members of the Executive Committee, the sub-committees, officers, and others, spoke of the valuable work done by the Imperial Cancer Research Fund the result of which

has been to open up entirely new lines of investigation, and laid stress on the fact that the main work of the Fund—its laboratory research—"is the only possible method of working which is going to produce great and permanent results for the good of humanity." Sir Richard Douglas Powell, Bart., K.C.V.O., was appointed a member of the General Committee and Sir Watson Cheyne, Bart., was re-elected a representative of the General Committee on the Executive Committee. It was also resolved—

"That the Honorary Treasurer of the Fund be, in future, *ex-officio* a member of the Executive Committee."

Mr. R. Clement Lucas was elected by the Council of the Royal College of Surgeons a member of the Executive Committee in the vacancy occasioned by Sir Henry Morris, Bart., becoming, as Treasurer, an *ex-officio* member. Professor Higuchi and Dr. Takaki of Tokio, Dr. Rosenthal of Budapest, and Dr. Snapper of Amsterdam, have returned to their respective countries after pursuing, by permission of the Executive Committee, various investigations extending over a period of several months in the laboratories. The General Superintendent has continued to make a liberal distribution of material to all, both in this country and abroad, who have applied to him, and it is with satisfaction that an exchange of valuable material with Japanese scientific workers can be reported. To Professor Honda, Director of the Imperial Naval Medical College at Tokio, and to Dr. Higuchi, the thanks of the Executive Committee are due for their cordial coöperation in this respect. The General Superintendent attended the Second Conference on Cancer in Paris as the delegate of His Majesty's Government. A report on the Conference was prepared by Dr. Bashford for the Government and published as a Parliamentary paper.

The plans of the laboratories to be provided by the Royal Colleges of Physicians and Surgeons for the Imperial Cancer Research Fund in the new Examination Hall have been carefully considered by the Pathological Subcommittee, by whom several valuable suggestions have been made. These suggestions having been adopted, it is believed that the new laboratories will be very complete and fully equal to the demands of the work. The Executive Committee have agreed to contribute towards the cost of the laboratories by payment of a premium for a definite period of occupation or by the payment of an annual rental. Professor Welsh of Sydney and Dr. Sluys of Brussels have worked during the year in our laboratories with a view to acquire a knowledge of the methods of investigation pursued there. The accumulation of material for publication has decided the committee to issue another volume of scientific reports. This volume is now in the press and will probably be ready early in the autumn. It will contain papers on: (1) Spontaneous Tumours in Mice; (2) Cancerous Ancestry and the Incidence of Cancer in Mice; (3) The Behaviour of Tumour-cells during Propagation. Its preparation has involved a considerable amount of work by the Pathological, Statistical, and Publication Subcommittees. The committee, on the recommendation of the General Superintendent, decided in December last to offer to the Council of the Royal College of Surgeons for addition to its Museum numerous specimens which have been collected by the staff since the foundation of the Fund, showing cancerous growths in animals and the experimental reproduction and prevention of the lesions of the disease. This offer was gladly accepted, and the specimens are now exhibited in the Museum of the College.

As mentioned in the last report, Dr. Magnus Haaland terminated his connexion as a member of the staff on Feb. 11th last, on taking up his new appointment as director of the Pathological Institute of Bergen. In the vacancy occasioned by Dr. Haaland's resignation Dr. Russell has been appointed second assistant and Dr. Woglom has joined the staff as third assistant. The General Superintendent has recently fulfilled a promise to send an exhibit on behalf of this fund to the British Section of the International Hygiene Exhibition of Dresden. Dr. Murray attended in Dresden to arrange the exhibit, which has proved to be of considerable interest. The following papers have been issued from our laboratories during the year: On Knowledge of Peptolytic Ferments in different Carcinomata and other Tumours. Third Contribution. (Zur Kenntnis der peptolytischen Fermente verschiedener Krebse und anderer Tumorarten.—III. Mitteilung.) Hoppe-Seyler's Zeitschrift für Physiologische Chemie, Vol. lxvi., 1910.[1] Cancer in Domesticated Animals. Annual Conference of Veterinary Officers of Health, Glasgow. *Veterinary News*. September, 1910. Spontaneous Cancer in Mice. Proceedings of the Royal Society, B., Vol. lxxxiii., 1911. The Obligation imposed upon the General Practitioner by the Development of the Experimental Investigation of Cancer. *Practitioner*, March, 1911.

At the invitation of the Norwegian Medical Society the General Superintendent gave an address in Christiania on March 8th on "The Investigations of the Imperial Cancer Research Fund." Dr. Bashford, on the invitation of the University of Birmingham, also delivered the Ingleby Lectures at Birmingham in May last, the subject being "Advance in Knowledge of Cancer." An abstract of these lectures appeared in THE LANCET, June 10th, 1911, and in the *Birmingham Medical Review*.

FREDERIC G. HALLETT, Secretary.

Report of the General Superintendent.

The preparation of an annual report on the progress of investigations directed consistently to the solution of major problems necessitates a re-survey of much ground already traversed, with the addition here and there of new facts or modifications affecting the interpretation of old ones. The reports come to be really an annual review of the position of knowledge, dependent on investigations conducted in the laboratory, but also influenced by those conducted elsewhere, either at home or abroad. The scope of the investigations carried out during the past year has been very similar to that recorded in the Eighth Annual Report; the main work carried out during the year has been the maturing and preparing for publication some of the investigations outlined in the last report. This has involved much repetition of experiments for checking and supplementing results already arrived at, in order that they might be presented in the form of the Fourth Scientific Report, which is now in the press. A feature of this year's work is the extension of experimental investigation to rabbits, in which animal a carcinoma of the mamma and a sarcoma of the subcutaneous tissue have been discovered, the latter being capable of propagation. The Fourth Scientific Report, apart from an introduction, is restricted to three papers which bear directly upon the nature of cancer, and indirectly upon the genesis of some forms of the disease. The necessity for narrowing the field of inquiry was alluded to in the First Annual Report. This object has been advanced materially by the demonstration that the relation of each malignant new growth to the affected animal is an individual one, parallel to that obtaining between the organs of the body and the organism as a whole. More precise conceptions have been obtained of the influence of heredity in place of the indefinite and contradictory views previously current. Cellular alterations bridging over the differences between normal and cancerous cells have been demonstrated to take place in growths under continuous observation and under natural conditions. Taken together these three advances indicate the direction in which further investigation can be profitably undertaken. In addition, these demonstrations are supported by most important new statistical information which has been made accessible in the last report of the Registrar-General.

Statistics.—It will be remembered that the policy pursued in regard to the statistical investigation of cancer has been to supplement the national statistics, and, if possible, to add to their utility by special inquiries, but not to endeavour to overlap or in any way to replace them. This policy has been dictated by the belief that the adequate investigation of most of the statistical features of cancer is best carried out by the Registrar-General's Staff, since the data available for such a purpose do not exist outside of the national statistical office. It has been encouraged by the willingness with which the medical superintendents of statistics have collaborated with the Imperial Cancer Research Fund in supplementing and amplifying information calculated to assist purely pathological and experimental investigations. This collaboration and coördination, which does not exist in the case of organisations for the investigation of cancer in other countries, where independent statistical inquiries have been undertaken with the voluntary assistance of the medical profession, has been of the greatest importance in England and Wales by preventing profitless overlapping and in effecting real advances in the accurate statistical knowledge of the incidence of cancer. For several reasons it had long been desired that the reports of the Registrar-General should contain detailed information on the incidence of cancer in different parts of the body, and Dr. Tatham was able to make arrangements for obtaining this information at the outset of these investigations. The application of the law of age-incidence for cancer to short-lived as well as to long-lived animals reinforced the other reasons for obtaining it, and suggested that knowledge would be advanced by more detailed information about the age-incidence of cancer in the several organs of man as distinct from its dependence on the age distribution of persons.[2] It was anticipated that the data would be of both biological and statistical value, and the facts published by Dr. Stevenson in the last report of the Registrar-General illustrate that this hope has been fulfilled in several directions. The tabulation of the new data for the years 1901–09 has permitted an analysis of the figures recording the increase of deaths attributed to cancer, and bringing out the fact that the increase during this period is referable to certain anatomical regions and not to others. Thus, for males, the main increase falls on the alimentary tract, especially the stomach. The liver and gall-bladder and the skin show no, or only a slight increase. For females, the increase, although it falls mainly on the alimentary tract (stomach and intestines), affects also the mamma, while the uterus, ovary, liver and gall-bladder, rectum and skin show little or no increase. It is also of importance that the recorded mortality from cancer of the generative organs has not increased at the same rate as that for other organs, and that most of the increases affect the higher age-periods predominantly. For the first time it is fully demonstrated that it is wrong to make statements of a disquieting nature about the increase of cancer in general. In conjunction with other investigations means are also afforded of determining for parts of the body where the disease appears to be increasing, whether the increase is real or only apparent, and of ascertaining the causal factors peculiar to such parts. While it is evident that several of the differences brought out by the figures can be explained by more accurate diagnosis and by transference of the seat of the disease from the secondary to the primary situations, as illustrated, e.g., by the relation revealed between cancer of the liver and gall-bladder and the alimentary tract, this may not account fully for other features. In particular, the increase recorded for the mamma in women and the tongue in men requires further study and elucidation. Secondly, the analysis shows that the incidence is very unequally distributed among the several situations, and, indeed, that the whole curve of incidence may be different for different organs. A progressive increase up to the highest age-periods is characteristic of the face, lip, mouth, bladder, urethra, and breast only. The other organs show a distinct diminution in the highest age-periods; but it is not yet possible to determine whether this curve indicates a liability rising to a maximum followed by a diminution, or is merely the result of deaths being still ascribed to other causes in the case of cancer of internal organs in aged people. The proportion of total deaths ascribed to the ill-defined cause of old age is 65·6 per 1000 as compared with 65·7 for cancer, and it must be borne in mind that the increases recorded for cancer affect principally the higher age-periods and that the average age of the population is increasing. Sufficient has been said to indicate how important are the problems which are solved or revealed by the improvement in the details given in the national statistics. The study of the occurrence of cancer in mankind, and in domesticated animals in widely separated parts of the globe, has shown that the practice of peculiar customs (involving the subjection of particular parts of the body to chronic irritation), provokes the disease in situations and organs from which it is absent when these customs do not obtain. It is reasonable to suppose that the frequency of cancer would be diminished if such practices as the use of the kangri in Kashmir, the chewing of betel-nut, the eating of very hot rice in China, were discontinued. It is also reasonable to assume that the introduction into England of these exotic customs would greatly increase the frequency of cancer in this country. So definite is the evidence of the mediate causation of certain forms of cancer by chronic irritants that the possibility of variations in the cancer death-rate must be admitted as regards particular organs and regions of the body. The possibility of a variation of the main incidence of cancer in conformity with changes in certain customs must also be admitted. That irritation is really an important causative factor of cancer is an assumption

[1] In collaboration with the Physiological Institute of the Royal Veterinary College, Berlin.

[2] Second Scientific Report, Part I.

which is justifiable only for certain forms of cancer occurring in particular regions. The knowledge of the irritants to which different species of animals and the individual tissues of the same animal are susceptible is of very considerable importance. The acquisition of this knowledge will doubtless require extensive study, and it is advisable to approach this study in man statistically. In view of these considerations, and also because of the results of experiment, it appears advisable to have data of the incidence of cancer in persons pursuing different occupations. This matter was discussed with Dr. Tatham in 1903-04, and again discussed with Dr. Stevenson of the General Register Office, who has been so good as to explain to the Statistical Subcommittee that the new arrangements made by the Registrar-General for tabulating deaths would permit of this information being abstracted. For the purposes of comparison it will be necessary to learn not only the incidence of cancer on particular sites liable to irritation, but also the incidence of cancer on all other sites, as well as the incidence of the other causes of death in the occupations considered. This information will be embodied in the next decennial supplement to the reports of the Registrar-General. Of other statistical matters, reference may be made to the fact that over 4000 cases of cancer have now been collected from India. The figures confirm the conclusions already stated. Of interest has been a large series of cancer cases of which reports and specimens have been sent from Khartoum by Mr. Christopherson, the cases occurring in Arabs and in the natives of the Sudan and Bahr-el Ghazel remote from the influences of European civilisation. Dr. Preston Maxwell has drawn attention to a peculiarity in the incidence of cancer in China, where the men are very liable to cancer of the œsophagus, whereas in Chinese women the disease is rare or unknown. In China Dr. Preston Maxwell suggests that the difference is due to the men bolting their rice whilst it is very hot, the men being served first and the women afterwards when the rice has become cooler. Enough has been said to show that the statistical inquiries continue to add, each in its own way, to our knowledge of cancer either by revealing new facts or by giving, if not yet a true, still a more precise significance to old ones. Another form of inquiry which has been both statistical and experimental has thrown light upon the long-debated question of heredity.

Heredity.—The breeding experiments which have been in progress for many years have been alluded to in several earlier reports. They have now yielded upwards of 2000 mice of known ancestry and age. 562 females were available for a study of the influence of heredity on the development of cancer of the mamma when an analysis was made on Oct. 24th, 1910. The figures are arranged in the accompanying tables so as to bring out the ages of the mice, and the proportions which developed cancer of the breast in the two groups into which they have been segregated according to ancestry. All due precautions have been taken to avoid errors in the interpretation of the figures. The data show that heredity plays a part in the development of cancer of the breast in mice. At all age-periods the disease is more frequent when the mother, or either grandmother, or all three, had died from cancer of this organ.

TABLE I. (*Oct. 24th, 1910*). *Female Mice of Recent Cancerous Ancestry.* (*Mother, one or both grandmothers, or all three cancerous.*)

Age (months)	0-3	-6	-9	-12	-15	-18	-21	-24	Over 24.	Total.
No tumour—										
Living	—	—	9	7	6	8	7	4	6	47
Dead	—	—	49	48	39	28	22	20	18	224
Tumour mice—										
Organs other than mamma	—	—	—	1	2	2	1	—	1	7
Mamma	—	—	4	7	15	18	10	5	3	62
Total	—	—	62	63	62	56	40	29	28	340
Per cent. ...	—	—	6·5	11·1	24·2	32·1	25·0	17·2	10·7	18·2

TABLE II. (*Oct. 24th, 1910*). *Female Mice of Remote Cancerous Ancestry.* (*No cancer in mother or grandmothers.*)

Age	0-3	-6	-9	-12	-15	-18	-21	-24	Over 24	Total.
No tumour—										
Living	...	...	7	...	1	2	9	5	15	39
Dead...	...	...	30	37	24	28	19	17	6	161
Tumour mice—										
Organs other than mamma	...	...	...	...	...	...	1	1	2	4
Mamma	...	...	1	4	1	8	0	3	2	19
Total	...	...	38	41	26	38	29	26	25	223
Per cent. ...	...	...	2·6	9·8	3·8	21·6	0·0	11·5	8·0	8·6

The maxima occur at the same age-period in each group, being respectively 21·6 and 32·1 per cent. of the total number of animals, there being no evidence that the maximum incidence of cancer has been made to occur at a younger age in mice of recent cancerous ancestry. Without wishing to minimise unduly the important influence which heredity is thus demonstrated to have, it is necessary to warn against needless alarm or the awakening of pessimistic anticipations of the outlook on future efforts to cope with cancer. It has been sought deliberately to concentrate any tendency to the disease which may be due to heredity, and in this way to obtain mice more liable to the disease than are others. Apart from its bearing upon heredity, the obtaining of such mice was most important for furthering the experimental investigation of the genesis, nature, and should it be necessary artificial production of cancer, and for attempting to define the reasons for its apparently greater frequency in some geographical areas than in others. It will be obvious that a large field of investigation has been opened up by the segregation of mice into two groups of different liability, and it should be possible to obtain groups of animals of a still higher and a still lower liability. An effort is now being made to obtain by selection a breed of mice with diminished liability to cancer. While it is at present impossible to explain how the liability is transmitted, it can be averred with certainty that it does not consist in the inheritance of a soil more suitable for the growth of cancer in general. It is not the inheritance of a general constitutional predisposition suitable for growth, as is shown by the fact that implantation of cancer is not more successful in mice of a cancerous stock than in others. It can only be inferred, with some probability, that it is a local or circumscribed tissue predisposition, in virtue of which the mammary tissue is prone to pass from mere proliferative reaction into continuous or cancerous proliferation. Further, hereditary predisposition is only one of the factors in play, for it has been found that chronic inflammatory changes are remarkably frequent in the mammæ of female mice of the laboratory. Other factors still unrecognised may exist. It has been possible to obtain a sequence of all stages from normal tissue through mere chronic inflammation and simple hypertrophy, to adenoma and carcinoma. The manner of the occurrence and combination of these changes strongly suggest their interdependence and reference to a common cause which becomes effective in producing cancer through the variability of the normal cell as described below.

Individuality and cancer.—The study of the parallel behaviour of normal and cancer tissue both as regards absence of continued growth and the nature of the immunity reactions induced, when cancer is transferred from one animal to another of a strange species, showed that cancer had all the properties which distinguish the normal tissues of one species from those of another species. Recent experiment has carried knowledge much further. The fact that transplantable tumours grow in normal animals as well as they do in spontaneously affected animals shows that the latter do not present a soil for the growth of cancer substantially different from that presented by normal animals. When this result is contrasted with the almost invariable success of transplanting a portion of its spontaneous tumour into the animal so affected, and the almost invariable failure of implantation of any spontaneous tumour into other spontaneously affected animals, the demonstration is complete that each tumour is peculiarly and genetically related to the individual in which it arises. This conclusion is drawn from studying the growth of tumours under the different conditions just enumerated, and is supported by the results of elaborate experiments on inducing resistance or immunity to the inoculation of cancer cells under these different conditions. The results of these two lines of inquiry agree also with the fact that resistance has not been induced either with an animal's own tumour or its own normal tissue.[3] The individuality of cancer would thus appear to have been placed at last beyond all further discussion. It has long been maintained in various forms on the basis of deductions drawn from histological (microscopical) examination of the tissues at the site of the primary lesion, and from the nature of dissemination, but this interpretation of the findings has been as vehemently combated. The combination of the results arrived at by microscopical investigation and experimental study appears to terminate any need for further discussion. A long step has thus been taken in defining the direction in which the future investigation of cancer is alone likely to be profitable.

The nature of cancer.—It follows from the argument pursued in the preceding paragraphs that a closer definition of the nature of cancer will involve an analysis of the relation obtaining between the individual developing cancer and the tumour. This final analysis will be possible only on animals naturally afflicted with the disease, for, as pointed out consistently from the First Annual Report onwards, the genesis and the growth of cancer are distinct phenomena which can and ought to be separately investigated. The study of propagated cancer is only a study of its growth under natural and artificial conditions, and has only an indirect bearing upon the genesis of the disease. Hence the breeding experiments, to which allusion has already been made, acquire enhanced significance, and are already being, and will continue to be, conducted on a much more extensive scale. An adequate supply of animals of differing liability to the disease must be made available for the elucidation of problems, some of which are already suspected, while past experience makes it likely that others, as yet unsuspected, will arise. In all previous reports guarded reference has been made to the mediate relation obtaining between chronic irritation and certain forms of cancer. The indefiniteness in the way of drawing attention to the relationship is deliberate. In the first place, it is due to an effort to elucidate those forms of cancer with which irritation is most constantly associated without considering other forms in which the particular irritants concerned do not play a part. In the second place, it is due to the fact already frequently emphasised, that these irritants have nothing in common beyond their association with cancer. The varied investigations of the past nine years have added a knowledge of new forms of irritation. It has become more and more evident that irritation, effective in one case, may be, and often is, quite ineffective in another. The experimental aspect of the comparative investigation of cancer has met with much adverse criticism largely because of the necessity for reproducing experimentally all the natural lesions of the disease, and then utilising this procedure to devise methods to prevent them, as well as from the necessity for cultivating the cancer cell in order that a constant supply may be available for a variety of purposes. This supply can most satisfactorily be maintained by growth in living animals, the application to tumour cells of Ross Harrison's method of cultivating normal tissues in coagulated plasma by Burrows and Carrel being still impracticable as a routine method of

[3] In last year's annual report it was stated that an animal could be immunised against the transplantation of a tumour from another animal by means of one of its own tissues. More extended investigation has shown that this result is not invariably obtained.

continuous propagation. Ever since the beginning of these investigations it has been maintained that the mere cultivation of cancer had important, if only indirect, bearings upon its nature and genesis. Thirty-five of the tumour-strains have now been growing for over three years—i.e., for longer than a mouse lives—while 50 other strains have been grown for extended periods. The one feature all these tumour-strains have in common is the power of continuous growth which they possess, in spite of the most divergent structure and of extremes in the rate of growth varying from an almost explosive rapidity to one much inferior to that of embryonic tissue, as determined by weighing experiments. It can be shown that there is a constancy in the behaviour of a tumour-strain and a variability which is individual. The variations which occur are similar to those which distinguish the 85 different strains from one another. They are not mainly induced by the environment but arise spontaneously; otherwise all strains would approach a common type, which they do not. The demonstration of the occurrence of these variations under artificial conditions permits of the inference that they could also occur under natural conditions, and yields objective evidence of the validity of the conclusion that the cancer cell is a biological modification of the normal cell endowed with many inherent properties of the latter. The objection at once suggests itself that these variations during prolonged propagation are secondary, and do not necessarily indicate corresponding primary changes as responsible for genesis; but this objection cannot be maintained against the facts that the potentiality for variation has been demonstrated, as has also the tenacity with which the several varieties are adhered to. It has been ascertained that every fresh transplantation effects a disturbance of the cancer cells. They are thrown into a state equivalent to regeneration from which they tend to recover, as analogous as possible to reactive proliferation when naturally occurring. Hence the features observed under artifical propagation throw suggestive light upon the nature of cancer and its genesis in those cases in which a prolonged phase of reactive proliferation has intervened between the first response to irritants and the development of cancer.

Immunity and therapeutic investigations.—Apart from the investigations in which the reactions of immunity have been employed to elucidate the nature of cancer, numerous experiments bearing upon the possibilities of treatment have continued to be made. The onset, rise, fall, and disappearance of immunity as induced by the inoculation of normal and cancerous tissue has been accurately defined in parallel experiments. The distinctions and similarities in the immunising powers of different tumours, especially of sarcoma as distinct from carcinoma, have been extensively studied. The dissemination of cancer has been studied experimentally both by injecting cancer-cells directly into the blood-stream and by implanting them in internal organs. It has been found possible to produce the lesions of dissemination in these ways both in the absence and in the presence of a primary growth, and, what is more important also, to prevent them. Since every procedure found efficacious to modify in any degree the growth of transplanted cancer has been tested on mice naturally affected with the disease it is needless to enter into details, more especially since problems difficult of solution in the mouse, because of its small size and the short duration of its life, can now be studied under the more favourable circumstances obtaining in the rabbit. As pointed out in previous reports, nothing but harm can result from the premature application to the treatment of the human subject of methods found to modify the growth of propagated cancer in animals. In order to emphasise still more strongly this warning it may be stated that the methods which induce an *active* immunity to propagated cancer have been tested on 33 mice with natural cancer, and have given no evidence of powers either to hinder growth and dissemination, or to prevent recurrence of spontaneous cancer after surgical removal. These methods have also been found to be of no avail in preventing the successful inoculation of an animal with its own tumour; and they have their practical application at present only in the elucidation of the properties of cancer cells. The successful treatment of animals bearing propagated cancer by means employed to induce *passive* immunity has been described by other investigators. Some of these methods have been tested in the laboratory, but have not yielded positive results. It becomes increasingly evident that the therapeutical treatment of cancer is not to be sought for along these lines. A considerable number of cases of natural healing of spontaneous malignant new growths has now been observed in mice affected with spontaneous cancer. The changes leading to natural cure appear to depend, as in propagated cancer, on an altered condition of the cell and its contents, rather than on an alteration in the general condition or constitution of the affected animal. Means must be devised for elucidating the nature of the change in the cell before curative measures can be discovered.

Since these investigations were first contemplated by those responsible for their inauguration, the provisions made for the investigation of cancer have greatly altered in this country. Whereas nine years ago, apart from special provision for treatment being supplied by a number of hospitals, there existed for the investigation of the disease only one other laboratory in addition to the imperial organisation contemplated by the founders of this Fund, to-day a number of other laboratories exist throughout the country, both in London and the provinces; England and Scotland are now provided with a greater number than any other country in comparison with their size and population. Whenever an opportunity has occurred of furthering the particular investigations upon which these institutions have been engaged, assistance has been rendered by supplying material from the laboratory and by the Imperial Cancer Research Fund in many other ways. The responsibilities thrown upon the workers of the Imperial Cancer Research Fund are not diminished, but rather increased, by the multiplication of institutions engaged in the investigation of cancer.

ERNEST F. BASHFORD, M.D.,
General Superintendent of Research and Director of the Laboratories.

Report of the Honorary Treasurer for the Year ending June 24th, 1911.

The income from investments for the year 1910–1911 was £4584 10*s.* 6*d.* The expenditure for the same period amounted to £5478 2*s.* 8*d.* A contribution from an anonymous donor of £1000 has been received for the specific purpose of equipping a bio-chemical laboratory. Legacies to the amount of £1936 7*s.* 4*d.* have been added to the Fund during the year, and £850 11*s.* 6*d.* have been received in subscriptions from 97 subscribers of sums varying from £100 to 5*s.* The excess of expenditure over income during the last year amounted to £893 12*s.* 2*d.* It is very considerably less than in any previous year, except in the first year of the existence of the Fund. During the year just ended there has been no exceptional or unusually heavy expenditure and the research work of the Fund has been carried on, as formerly, in premises provided, rent and taxes free, by the two Royal Colleges. This, however, is the last year that the Fund can expect to benefit by these special advantages. When the next report is made to the General Committee the work of the Fund will have been transferred to the new Examination Hall which is being erected by the Royal Colleges in Queen-square, Bloomsbury, and it is expected that either a premium for a definite term of years will have to be paid down or that the payment of an annual rent will begin to appear in the expenditure side of the balance-sheet. Another large volume of scientific reports is now in course of passing through the press, and this, besides having involved a very considerable amount of work on the part of the director and his staff and the several subcommittees, will make a very heavy demand upon the ensuing year's resources.

The general superintendent in his report has referred to the new responsibilities which are being thrown on his staff by the increase in the number of workers engaged in the investigation of cancer in other centres. Many of these centres have naturally looked to the Imperial Cancer Research Fund to assist them, but the provision of this assistance adds greatly to the mere routine work conducted in the laboratories. Owing to the advance in our knowledge much of what was originally investigation of prime importance has now become routine work and could well be deputed to a subordinate staff trained for the purpose. The provision of such a staff would set free the more highly trained men capable of original research, on whom we must rely to maintain the scientific reputation which the Fund has obtained. In order that this much-desired end may be achieved, it is essential that the Fund should have at its disposal a considerably augmented income. Moreover, a reconsideration of the scale of remuneration of the superior staff is essential if the Fund is to maintain a position commensurate with the duties and responsibilities of a truly imperial organisation. For these reasons it is most undesirable that the Fund should have to be constantly drawing upon its capital, and once more I must call attention to the pressing need for such a substantial increase in the endowment as will provide an income sufficient to defray all the ordinary and, from time to time, extraordinary expenses of the work.

HENRY MORRIS, Honorary Treasurer.

Sir HENRY MORRIS, in seconding the adoption of the report, uttered a warning against misapprehending the favourable report of the treasurer. It was true that this year the expenditure had exceeded the funded income by only £893, whereas on some prior occasions the excess had been as much as £2000. But this year there had been no unusual expenses. Next year, however, the large amount expended on the Scientific Report now in the press would make itself felt. Notwithstanding that in the nine years that had elapsed since the foundation of this Fund many new bodies and laboratories for cancer research had come into being both here and abroad, the value of this Research Fund was shown in three ways: by the great number of distinguished investigators who came from all parts of Europe, America, and from Japan, to study the methods of research in progress in that laboratory; by the fact that the director of the laboratory had been called on by leading scientific bodies in Paris, Berlin, Heidelberg, Toronto, Christiania, Utrecht, and Budapest, and elsewhere, not to mention many English research centres, to deliver addresses before them explanatory of the methods used; and by the fact that a committee, not confined to the Royal College of Surgeons of England, but assisted by the advice of other centres of investigation in Europe and America, had conferred upon thei director, Dr. Bashford, the Walker prize for the best original work done during the past five years in any country towards advancing our knowledge of cancer. Sir Henry Morris urged the necessity for reviewing the scale of remuneration, because it was essential that the Fund should be able to retain the best and most highly trained workers, and there was arising a demand for workers trained in that laboratory for other places at higher salaries.

The resolution was carried unanimously.

The DUKE of BEDFORD, from the chair, then moved a vote of thanks to the chairman, members of the Executive Committee, the sub-committees, the honorary treasurer, and others who had assisted in the work of the Fund during the past year. These gentlemen, he said, were mainly representatives of various scientific bodies who ungrudgingly gave their time and skill to the consideration of the problems continually brought before them by Dr. Bashford and his staff. Scrupulous care was exercised by them to avoid unguarded statements that might unduly exalt or depress the public hopes. They owed thanks also to Dr. Stevenson, of the Registrar-General's office, through whose cordial coöperation the investigation of the distribution of cancer was rendered possible, while profitable lines of investigation were being indicated by the differentiation of the various groups of the disease which affected the different parts of the body in different ways. Next year the Fund would move to the new laboratories, now being erected over the new Examination Hall of the Royal Colleges. The

improved accommodation, planning, and equipment justified the Executive Committee in its agreement to contribute in the form of premium or rent for these laboratories, and he hoped that additional public support would enable them to meet this tax without encroaching on the capital of the trust. Progress was being made, but there would be much expenditure in time and money before definite results could be obtained, and once more they had to ask their supporters to exercise the virtue of patience.

Sir RICHARD DOUGLAS POWELL seconded the motion, which was unanimously adopted.

Sir HENRY BUTLIN moved, and Sir JOHN MCFADYEAN seconded, the nomination for re-election by the Royal Colleges of Physicians of London and Surgeons of England of Sir William Church as a member of the Executive Committee. This also was carried.

Sir THOMAS BARLOW proposed a vote of thanks to the Duke of Bedford for presiding, which was seconded by Sir JOHN TWEEDY and unanimously carried.

BRITISH PHARMACEUTICAL CONFERENCE.

Presidential Address.

THE forty-eighth annual meeting of the British Pharmaceutical Conference was opened at the Municipal College, Portsmouth, on July 25th, when, after an address of welcome had been given on behalf of the municipality, Mr. W. F. WELLS (Dublin) delivered his presidential address, which dealt mainly with the laws relating to the sale of poisons in the United Kingdom. He showed that the one idea running through the various Pharmacy Acts was the protection and convenience of the public, the public health and the lives of the people being considered of paramount importance. The essential difference between the pharmacy laws of the United Kingdom and those of France is that the French laws give the pharmacist a definite place in the community, specific services to perform for the community, and ensure that none shall poach upon the preserves fenced by these laws. In Germany the practice of pharmacy is strictly confined to qualified persons, and a custom exists there which is unknown either here or in France of strictly limiting the number of pharmacies, each pharmacy throughout the Empire being licensed by the State. The consequence is that in Germany a pharmacist cannot start business until a vacancy for a pharmacy occurs and he obtains or purchases the concession to carry on the business of an old-established pharmacy, or to open a new one where the growth of the population warrants the State granting a new concession. After further demonstrating the superiority of the German and French systems over the British and Irish, Mr. Wells asked, "Might not the British Government with advantage take a lesson from our French and German neighbours, and, when importing German-made insurance schemes, go a little further and include an order for a few pharmacy laws 'made in Germany'?" Mr. Wells had a word to say concerning the supply of drugs to Irish boards of guardians. In Ireland the Local Government Board compel the guardians of unions to accept the lowest tender, and the result of this may best be shown by quoting the President's words. "What becomes," he asked, "of the tons of damaged and useless drugs that from time to time are placed on the market? Much of the stuff which is unsaleable in the British drug market is, I believe, sent abroad, and yet finds it way back again, having been either 'cooked' or redressed, to Great Britain and Ireland for consumption. Who is responsible for this state of affairs? The answer is the boards of guardians, governors of institutions, and the public who insist on buying medicines at competitive prices at which we know they cannot be produced. It appears to me a cruel thing—I might go even further and say a criminal thing—for those who have in their hands the care of the sick poor in public institutions to purchase the supplies of medicines, putting price first, and too often without regard to quality or therapeutic value, the lowest tender being the one standard of merit." As to the National Insurance Bill, the President had little to say except that if passed in its present form it would certainly injure many a pharmacist.

Papers read in the Science Section.

The reading of papers in the Science Section was begun at the conclusion of the Presidential address and continued on the following day. There were in all 20 papers, some of which were brief notes on subjects of purely pharmaceutical interest. Several of the papers were of some importance to medical practitioners, as, for instance, the communication by Mr. R. R. BENNETT, B.Sc., F.I.C., on a Suggested Standard for Thyroideum Siccum. There is a widespread belief among clinicians that the commercial thyroid preparations vary considerably in their degree of physiological activity, but at the present time there is no officially recognised standardisation process. The agreement among the majority of pharmacologists that the activity of thyroid is directly proportional to, and dependent upon, the combined iodine present appears to, render it urgently desirable that an iodine standard should be fixed, especially in view of the wide variations in the iodine content of commercial samples of thyroideum siccum. Specimens of this product from four of the leading manufacturers have been examined recently, and the combined iodine present has been found to vary in amount from 0·315 per cent. to 0·038 per cent. The percentage of iodine in dry thyroid obtained direct from the slaughter-house has also been determined, the glands having been treated in accordance with the directions in the British Pharmacopœia; the iodine present in these powders has been found to vary from 0·21 per cent. to 0·096 per cent., the average value being 0·158 per cent. Mr. Bennett's figures confirm those obtained by previous investigators, and in his opinion these figures indicate that an iodine standard of 0·15 per cent. might be adopted for thyroideum siccum without in any way unduly harassing the manufacturer.

Mr. H. DRANE, B.Sc., F.I.C., in a paper on Extract of Indian Hemp, drew attention to the variability of this extract as supplied by manufacturers. The pharmacopœial preparation is unsatisfactory, being composed of two constituents, a green resin and brown water-soluble extractive matter, which show a tendency to separate, and, moreover, it is by no means completely soluble in alcohol, which makes the preparation of the tincture troublesome and messy. Therefore a demand has arisen for an extract soluble in alcohol; hence the reason for the predominance of non-official extracts. There is little doubt that the resinous portion of the extract contains the active principle, and extracts which are practically pure resin may be expected to be therapeutically more active as well as pharmaceutically more elegant than other extracts. To obtain such an extract the method suggested by Mr. Drane was simply to wash away the brown extractives with warm water after the spirit had been distilled off in the same way as resin of jalap and resin of scammony are prepared. He suggested that this method should be adopted by the Pharmacopœia, so that the present unsatisfactory state of affairs might be altered.

In a paper on the Supposed Loss of Morphine in the Preparation of Tincture of Opium, Mr. E. H. FARR, F.C.S., and Mr. R. WRIGHT, F.C.S., demonstrated that when the official methods are followed throughout there is always a loss. In seven samples of opium worked upon this varied between the limits of 0·8 per cent. and 9·0 per cent. of the whole, with an average for the whole series of 4·78 per cent. In the light of these results it is evident that, notwithstanding the amount of careful thought and experimental work which has been devoted to the subject of opium assay, there is still room for a thorough and systematic review of the whole subject. If the principles of the process had been radically unsound, the authors would have expected to find the deficiency of morphine to be more constant and regular than is the case. The loss appears to them to be due more probably to the occlusion of the alkaloid, rendering its complete extraction by water or alcohol a matter of practical impossibility, or to some other factor which has hitherto escaped recognition.

A paper of particular interest to medical practitioners was read by Mr. F. W. F. ARNAUD, F.I.C., on the Composition of Diabetic Foods. The term diabetic food embraces a very wide class of food products, but in this communication gluten bread and flours only were dealt with. The majority of the almond, milk protein, and soya bean, &c., preparations are known to contain less than 10 per cent. of starch, dextrin, and sugar together. Mr. Arnaud examined 12 different samples of gluten bread and flours, the product of seven manufacturers, and the conclusion he came to was that the products of one manufacturer only were satisfactory. He described the method of analysis adopted and tabulated the results. Drawing attention to the advertisement matter

of some of the firms in question, he said that one firm submitted that its products were more nutritious than any other preparation of the kind; again, a statement advertised very generally was to the effect that the starch present in the foods had been altered, so that it could be digested and assimilated by the diabetic subject. But Mr. Arnaud cannot confirm the statement that the starch is appreciably altered either by the qualitative iodine test or the microscope. A sample of an expensive diabetic food was found to consist of ordinary flour which had merely been heated.

In a note on Linimentum Ammoniæ, Mr. F. H. ALCOCK, F.I.C., suggested an improved formula for this preparation. When made according to the official process the liniment sometimes becomes solid on keeping. His suggested formula was as follows: almond oil, 3 fluid ounces; olive oil, 8 fluid ounces; strong solution of ammonia (0 880), 1 fluid ounce. The product has not such a good appearance as the fresh official preparation, but is very effectual. He did not know why the expensive almond oil was introduced into the official formula, and thought that olive oil alone might be used with his suggested formula.

Mr. D. B. DOTT, F.R.S.E., in a note on Spirit of Nitrous Ether, said that under practical conditions of dispensing it was difficult to avoid the volatilisation of the ethyl nitrite. He therefore proposed that no spirit of nitrous ether should be kept in stock at all. There would be two solutions, like Fehling No. 1 and No. 2, which would be mixed when dispensing, using ½ fluid drachm of sodium nitrite solution with 7½ fluid drachms of alcohol acidified with lactic acid. The proposal was made in view of the forthcoming Pharmacopœia. Mr. Dott also read short notes on Strychnine Hypophosphite and Arsenates of Strychnine.

In a note on Solution of Sodium Ethylate Mr. H. FINNEMORE, B.Sc., said it usually happened when this solution was required for use the "stock" was dark in colour; although its medicinal properties are not affected by this colouration, the user is apt to assume that deterioration has accompanied the change. A sample of solution of sodium methylate showed no trace of discolouration after two years. Mr. Finnemore also (with Mr. G. E. TOWN) contributed a note on Bartsia Odontites.

A communication on Podophyllum Emodi was contributed by Mr. J. C. UMNEY, F.C.S., who referred to the second report of the Indigenous Drugs Committee of India, which dealt with Podophyllum emodi amongst other drugs. Some medical opinions recorded in that committee's report indicated that the purgative action of P. emodi resin was better than that of podophyllum resin (B.P.), as the drug did not produce griping; whilst other medical opinions were that it was about equal in value to the pharmacopœial resin. At the request of the Indian Drugs Committee Mr. Umney conducted a series of experiments upon the drug, collected under different conditions and at different seasons. He found that the Indian rhizome collected after flowering was at least twice as rich in podophyllotoxin as the American rhizome.

The titles of other papers were as follows: "An Experiment in Peppermint Culture," by Mr. J. H. HENDERSON, in which it was shown that the oil yield of peppermint grown in the shade was less than a quarter of the yield of ordinary plants; "Note on the Constitution of Commercial Bismuth Subchloride," by Mr. J. B. P. HARRISON, F.I.C; "White Precipitate and the Analysis of White Precipitate Ointment," by Mr. G. D. ELSDON, B.Sc.; "Note on Spirit of Sal Volatile," by Mr. E. W. POLLARD, B.Sc.; and "The Moisture and Ash Contents of Medicinal Extracts," by Mr. K. C. ALLEN and Mr. T. BREWIS, F.I.C.

In the Practice Section there were discussions on Secret and Proprietary Medicines, Pharmaceutical Education, and the National Insurance Scheme.

DEATH FROM SALVARSAN.—At the Hackney coroner's court on July 19th Dr. W. Wynn Westcott held an inquest with reference to the death of a man, aged 47 years, who died from the effects of taking salvarsan, or "606." Dr. George Dorner, medical officer of the German Hospital, said the deceased suffered from locomotor ataxy. His condition was serious. He was treated with salvarsan and received an injection of 0·6 gramme, about 7 grains being the dose. After the treatment he became worse and died. The jury returned a verdict that the man died as a result of the injection of salvarsan properly used.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE following are among the amounts received at the Mansion House up to July 22nd (total available for distribution, £45,700):—

	£	s.	d.
St. Mary Abbots (total)	422	0	0
West London Synagogue	318	0	0
St. Paul's, Knightsbridge	280	0	0
Kensington Parish Church	274	0	0
Great Synagogue, Aldgate	237	0	0
Westminster Abbey	203	0	0
Holy Trinity, Kensington Gore	175	0	0
Hampstead Synagogue	152	0	0
St. Paul's, Hampstead	138	0	0
Central Synagogue	124	0	0
New West End Synagogue	110	0	0
St. Peter's, Brockley	100	0	0
St. Leonard's and All Saints', Streatham	91	0	0
Bayswater Synagogue	90	0	0
St. Paul's, Vicarage Gate	86	0	0
Christ Church, Chislehurst	86	0	0
St. Thomas's, Portman-square	77	0	0
Victoria Park Christian Evidence Association	74	0	0
St. John's Wood Synagogue	70	0	0
Holy Trinity, Marylebone	66	0	0
St. Mark's, Marylebone	64	0	0
Christ Church, Victoria-road	62	0	0
Blackheath Congregational Church	58	0	0
Barking Parish Church and Missions	57	0	0
Holy Trinity, Wandsworth	55	0	0
St. Saviour's, Ealing	52	0	0
"F."	50	0	0
German Church, Camberwell	46	0	0
St. James's, Garlick Hill	43	0	0
Christ Church, Ealing	38	0	0
Willesden Presbyterian Church	34	0	0
St. John's, Blackheath	31	0	0
St. Barnabas, Pimlico	31	0	0
Dalston Synagogue	31	0	0
St. Ann's, Stamford Hill	29	0	0
Hammersmith Parish Church, with St. Mark's	29	0	0
South Hackney Synagogue and Religion Classes	27	0	0
St. Barnabas, Clapham	27	0	0
St. Simon's, Paddington	26	0	0
St. Paul's, Forest Hill...	25	0	0
St. Margaret's, Streatham	24	0	0
Stoke Newington Synagogue	24	0	0
St. Mary's, Crouch Hill	23	0	0
Bromley, Kent, Wesleyan Church	22	0	0

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE (LONDON, 1913).

MEETING OF ORGANISING COMMITTEE.

A MEETING of the Organising Committee was held on Friday, July 14th, at the Royal College of Physicians of London, Sir THOMAS BARLOW, the President, being in the chair.

There were present, among others, Sir Dyce Duckworth, Dr. F. W. Pavy, Sir William Bennett, Sir William Allchin, Sir William Osler, Dr. Norman Moore, Professor G. Sims Woodhead, Sir David Ferrier, Sir Malcolm Morris, Sir R Havelock Charles, Sir David Bruce, Dr. Squire Sprigge, Mr. G. H. Makins, Dr. W. P. Herringham, Dr. A. E. Garrod, Mr. C. T. Dent, Dr. T. D. Acland, Dr. Herbert Spencer, Sir A. Pearce Gould, Sir Watson Cheyne, Sir Shirley Murphy, Dr. Frederick Taylor, and Dr. Dudley Buxton.

The minutes of the last meeting, as published in THE LANCET and *British Medical Journal* of April 8th, 1911, were confirmed.

Letters of regret were read from 20 members of the committee who were unable to attend.

The report of the Executive Committee was adopted as follows:—

(1) That the printing of the Transactions of the Congress be entrusted to the Oxford Press; (2) that the Royal Albert Hall be engaged for the week of the Congress, to serve as post office, bureau, and site for the exhibition of medical appliances; and (3) that the arrangements to be made for carrying out the exhibition of medical appliances, in accordance with the resolution of the Organising Committee, be left in the hands of the Finance Committee, with power to act and report to the Executive Committee.

The HONORARY GENERAL SECRETARY (Dr. W. P. Herringham) reported that the regulations proposed at the last meeting of the Organising Committee had been laid before the Permanent Commission, and had been, with slight modifications, adopted.

The question arose as to the rules which should be

followed in sending official invitations. The matter was left in the hands of the officers for report to the Organising Committee.

The PRESIDENT then moved :—

1. That it is desirable that the staffs of sections should include members from the colonies.

This was unanimously approved.

2. That the secretary should be instructed to communicate with (*a*) the President and Secretary of the Canadian National Committee for International Medical Congresses; (*b*) the President of the Australasian Medical Congress; and (*c*) the officers of the South African branch of the British Medical Association, asking them to nominate such of their members as they may think fitted by their scientific eminence to serve on the staff of such sections.

This resolution was unanimously approved.

The PRESIDENT then submitted the list of the officers of Congress and of the staff of such sections as were already completed. This was ratified by the committee.

Further names will be added in accordance with the resolutions above.

The committee then adjourned.

CENTRAL MIDWIVES BOARD.

A MEETING of the Central Midwives Board was held at Caxton House, Westminster, on July 20th, with Sir FRANCIS CHAMPNEYS in the chair.

Dr. G. E. HERMAN moved :—

That it is expedient to act upon the following resolution: "A midwife will be deemed to have discharged the duty imposed upon her by Rule E, 20 (5) if, after having filled up the form of sending for medical help and handed it to the parent or friend, she advises the parents either to: (*a*) ask a registered medical practitioner to come to the child; (*b*) send the child to a registered medical practitioner; or (*c*) send the child to a hospital, according to the circumstances of each case."

The rule referred to provides that medical help must be sent for "in the case of the child, when there is any abnormality or complication, such as injuries received during birth, any malformation or deformity in a child that seems likely to live, dangerous feebleness, inflammation of, or discharge from, the eyes, however slight, serious skin eruptions, inflammation about the navel."

The CHAIRMAN said that at a recent penal meeting of the Board he was asked if the midwife was complying with the rules if she sent a child to the doctor. His answer was that she was not, but thinking it over he came to the conclusion that the midwife was complying with the rules. In Liverpool, for instance, there was a good eye hospital, and in the case of ophthalmia neonatorum he thought a midwife would be doing right in sending the child to such a hospital. The midwife must, however, not fail to notify the local supervising authority, and to fill up the form for summoning medical help. He desired the Board to note that his remarks must be taken as information for the Board, and not in support of the resolution proposed by Dr. Herman.

Mr. PARKER YOUNG said that the midwife might get into difficulties if she sent a child to the doctor instead of having the child first seen by a doctor and then acting on the advice given.

After the CHAIRMAN had pointed out that in the circumstances the child's interests were safeguarded, Dr. HERMAN agreed to withdraw his motion.

A letter was considered from Dr. Comyns Berkeley, obstetric physician, Middlesex Hospital, on behalf of the weekly board of the hospital with regard to a complaint made by a certified midwife of the inadequacy of the training given at the hospital. The further consideration of the matter was adjourned in order to afford an opportunity to members of the Board to visit the Middlesex Hospital and observe the methods of training adopted at that institution.

A letter was considered from the clerk of the Notts county council as to the difficulty experienced in securing the conviction of uncertified women for practising contrary to the provisions of Section 1 (2) of the Midwives Act, 1902. The Board decided it be suggested to the local supervising authority: (*a*) That an opportunity be taken of appealing to the High Court from any decision of a Petty Sessional Court holding as a matter of law that, in the absence of proof by the prosecution that the uncertified woman attending a midwifery case has been engaged beforehand, the case becomes one of emergency within the meaning of Section 1 (2) of the Midwives Act, 1902; (*b*) that the local supervising authority should itself report direct to the General Medical Council any case in which, in their opinion, a medical practitioner has been guilty of "covering."

A letter was considered from the town clerk of Sheffield as to the Board's procedure on the citation of midwives against whom *primâ-facie* cases have been found by local supervising authorities. The Board decided that the town clerk of Sheffield be informed that the meetings of the Board are open to representatives of the press who have received permission to attend, and that the citation of women against whom local supervising authorities have found *primâ-facie* cases of malpractice, negligence, or misconduct is a part of the Board's proceedings; that the responsibility of publishing any particular item of business transacted at the meeting rests with the press, and that the Board is not prepared to alter its procedure nor to argue the case further.

The Board had under consideration the National Insurance Bill, so far as it affects the practice of midwives, and adopted the following memorandum embodying the views of the Board on the National Insurance Bill :—

The Board and the National Insurance Bill.

The following is the memorandum to be submitted to the Chancellor of the Exchequer by the Central Midwives Board :—

The Midwives Act of 1902 was passed in the interests of the mothers and infants of England; this Act recognises midwives as an important body directly concerned with the safety of pregnant, parturient, and lying-in women and their infants. The results of their work during nearly ten years past are shown in the reduced maternal mortality as appears from the statistics of the Registrar-General.

In the Insurance Bill now before Parliament the midwife is ignored. The Central Midwives Board urges that this position, which it can hardly believe is intentional, should be so modified in the Bill that free choice should be given to mothers whether they wish to be attended by a medical practitioner or by a midwife. It is desirable that the position of midwives under the Bill should be recognised and defined, and their duties in respect of maternity benefits distinguished from those of the medical profession.

In our opinion it would be in the interests of the public health that a representative of the Central Midwives Board, as a statutory body, should be upon the Advisory Committee (Clause 42); also that midwives should be represented upon Local Health Committees (Clause 43 (5)). It would be advantageous that any rules or regulations of a general character relating to maternity benefits should be submitted to the Central Midwives Board for consideration, this body having been constituted the authority in charge of the regulation of the practice of midwives and having a wide experience thereon.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN 77 of the largest English towns 8144 births and 3751 deaths were registered during the week ending July 22nd. The revised estimate of the population of these towns in the middle of this year is 16,157,797 persons. The annual rate of mortality in these towns, calculated on this revised estimate, which had been equal to 11·7, 12·0, and 11·8 per 1000 in the three preceding weeks, rose again to 12·1 in the week under notice. During the first three weeks of the current quarter the annual death-rate in these towns averaged 12·0 per 1000, while in London during the same period the mean annual death-rate did not exceed 11·2 per 1000. The recorded annual death-rates in the 77 towns during last week ranged from 3·2 in Burton-on-Trent, 4·5 in Devonport, 4·9 in Hornsey, and 5·1 in Smethwick, to 16·8 in West Bromwich and in Tynemouth, 17·3 in Liverpool, 18·6 in Swansea, and 19·5 in Dewsbury. The 3751 deaths from all causes in the 77 towns last week showed an increase of 101 upon the number in the previous week, and included 423 which were referred to the principal epidemic diseases, against 284 and 324 in the two preceding weeks. Of these 423 deaths 236 resulted from infantile diarrhœa, 62 from measles, 52 from whooping-cough, 40 from diphtheria, 22 from scarlet fever, and 11 from enteric fever, but not one from small-pox. The mean annual death-rate from these epidemic diseases was equal to 1·4 per 1000, against 0·9 and 1·0 in the two preceding weeks. The deaths of infants under two years of age attributed to diarrhœal diseases in the 77 towns, which had increased from 70 to 136 in the three previous weeks, further rose last week to 236, and caused the highest annual rates of 2·7 in Liverpool and in St. Helens, 2·9 in Dewsbury, 3·0 in West Bromwich and in Bootle, and 3·6 in Birkenhead. The 62 fatal cases of measles showed a further decline from the numbers in the 19 preceding weeks, and included 23 in London and its

suburban districts, 11 in Manchester, and 3 each in Nottingham, Salford, and Newcastle-on-Tyne. The deaths referred to whooping-cough, which had declined from 81 to 43 in the six preceding weeks, rose to 52 last week, and included 12 in London and its suburban districts, and 5 in Manchester. The fatal cases of diphtheria, which had increased from 21 to 45 in the four previous weeks, declined last week to 40; 15 occurred in London and its suburban districts, 4 in Portsmouth, and 3 in Liverpool. The 22 deaths from scarlet fever showed an increase of 3 upon the number in each of the two previous weeks, and included 6 in London, 3 in Liverpool, and 2 each in Birmingham, Preston, and Leeds. The 11 deaths from enteric fever, of which 2 occurred in Birmingham, were one less than the number recorded in the preceding week. The number of scarlet fever patients under treatment in the Metropolitan Asylums and in the London Fever Hospital, which had steadily increased from 982 to 1345 in the 14 preceding weeks, had further increased to 1358 on Saturday last; 199 new cases of this disease were admitted to these hospitals during the week under notice, against 191 and 204 in the two previous weeks. These hospitals also contained, at the end of last week, 822 cases of diphtheria, 354 of measles, 287 of whooping-cough, and 47 of enteric fever, but not one of small-pox. The 985 deaths from all causes in London last week were 3 in excess of the number recorded in the previous week, and included 113 which were referred to diseases of the respiratory system, against 102 and 119 in the two previous weeks. The deaths attributed to different forms of violence in the 77 towns, which had been 155 and 194 in the two preceding weeks, were 188 last week, and 354 inquest cases were registered. The causes of 32, or 0·9 per cent., of the deaths registered in the 77 towns during the week under notice were not certified either by a registered medical practitioner or by a coroner. All the causes of death during last week were duly certified in Leeds, Bristol, West Ham, Bradford, Newcastle-on-Tyne, Nottingham, Portsmouth, Salford, and in 52 other smaller towns; the 32 uncertified causes of death in the 77 towns last week included 7 in Birmingham, 5 in Manchester, and 2 each in London, Liverpool, Warrington, Bury, and Sheffield.

HEALTH OF SCOTCH TOWNS.

In eight of the principal Scotch towns, having an estimated population of 1,710,291 persons in the middle of this year, 838 births and 457 deaths were registered during the week ending July 22nd. The annual rate of mortality in these towns, which had increased from 13·3 to 14·9 per 1000 in the four preceding weeks, declined last week to 13·9. During the first three weeks of the current quarter the annual death-rate in these Scotch towns averaged 14·5, and was 2·5 per 1000 above the mean rate during the same period in the large English towns. The annual death-rate during last week in the eight Scotch towns ranged from 8·6 and 10·2 in Paisley and Aberdeen to 15·9 in Glasgow and 17·4 in Perth. The 457 deaths from all causes in the eight towns last week showed a decrease of 31 from the number in the previous week, and included 63 which were referred to the principal epidemic diseases, against 50 and 57 in the two previous weeks; of these 63 deaths, 28 resulted from diarrhœa, 17 from whooping-cough, 9 from measles, 4 from scarlet fever, 3 from diphtheria, and 2 from enteric fever, but not one from small-pox. The mean annual death-rate from these epidemic diseases in the eight towns last week was equal to 1·9 per 1000; the mean rate last week from the same diseases in the 77 English towns did not exceed 1·4 per 1000. The deaths from diarrhœa, which had been 14 and 18 in the two preceding weeks, further rose last week to 28, and included 23 of infants under two years of age; 18 deaths occurred in Glasgow, 5 in Edinburgh, and 2 in Greenock. The fatal cases of whooping-cough, which had been 12 and 23 in the two previous weeks, declined last week to 17, of which 10 were recorded in Glasgow, 3 in Edinburgh, and 2 in Dundee. The 9 deaths attributed to measles were 3 in excess of the number in the previous week, and included 5 in Glasgow and 3 in Edinburgh. Three of the 4 fatal cases of scarlet fever, 2 of the 3 deaths from diphtheria, and the 2 deaths from enteric fever were registered in Glasgow. The deaths referred to diseases of the respiratory system in the eight towns, which had been 56 and 47 in the two preceding weeks, rose again to 51 in the week under notice, and were 1 in excess of the number in the corresponding week of last year. Of the 457 deaths from all causes in the eight towns last week, 171, or 37 per cent., were recorded in public institutions, and 28 were attributed to different forms of violence. The causes of 14, or 3·1 per cent., of the deaths in the eight towns last week were not certified; in the 77 English towns the proportion of uncertified causes of death during the week did not exceed 0·9 per cent.

HEALTH OF IRISH TOWNS.

In the 22 town districts of Ireland, having an estimated population of 1,149,495 persons in the middle of this year, 767 births and 371 deaths were registered during the week ending July 22nd. The annual rate of mortality in these towns, which had been equal to 14·2 and 16·7 per 1000 in the two preceding weeks, further rose to 16·8 in the week under notice. During the first three weeks of the current quarter the annual death-rate in these Irish towns averaged 15·9 per 1000; in the 77 English towns the mean annual death-rate during the same period did not exceed 12·0, while in the eight Scotch towns it equalled 14·5 per 1000. The annual death-rate during the week under notice in the 22 Irish towns was equal to 19·8 in Dublin (against 11·4 in London), 16·3 in Belfast, 12·9 in Cork, 19·2 in Londonderry, 20·4 in Limerick, and 19·0 in Waterford; in the 16 smallest of these Irish towns the mean annual death-rate last week did not exceed 11·3 per 1000. The 371 deaths from all causes in the 22 towns last week showed an increase of 2 upon the number in the preceding week, and included 53 which were referred to the principal epidemic diseases, against 22 and 35 in the two previous weeks; these 53 deaths were equal to an annual rate of 2·4 per 1000, exceeding the mean rate from the same diseases in the 77 English towns by 1·0. These 53 deaths in the Irish towns last week from the principal epidemic diseases included 36 from infantile diarrhœa, 6 from whooping-cough, 4 from measles, 4 from diphtheria, and 3 from enteric fever, but not one from small-pox or from scarlet fever. The deaths attributed to diarrhœa, which had been 8 and 15 in the two previous weeks, further rose last week to 36; 18 deaths occurred in Belfast, 11 in Dublin, 3 in Limerick, and 2 in Londonderry. The 6 fatal cases of whooping-cough were 4 in excess of the number in the preceding week, and included 4 deaths in Dublin. Of the 4 deaths from diphtheria, which were equal to the number returned in the previous week, 2 were registered in Dublin and 2 in Belfast. Three of the 4 fatal cases of measles, and 2 of the 3 deaths from enteric fever were recorded in Dublin. The deaths referred to diseases of the respiratory system in the 22 towns, which had been 46 and 52 in the two previous weeks, declined last week to 40. Of the 371 deaths from all causes in the 22 towns last week, 112, or 30 per cent., were recorded in public institutions, and 10 were referred to different forms of violence. The causes of 14, or 3·8 per cent., of the deaths registered in the 22 towns last week were not certified either by a registered medical practitioner or by a coroner after inquest; the proportion of uncertified causes of death during the week under notice did not exceed 0·9 per cent. in the 77 large English towns, and was equal to 3·1 per cent. in the eight principal Scotch towns.

VITAL STATISTICS OF LONDON DURING JUNE, 1911.

IN the accompanying table will be found summarised complete statistics relating to sickness and mortality in the City of London and in each of the metropolitan boroughs. With regard to the notified cases of infectious diseases, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to an annual rate of 4·4 per 1000 of the population, estimated from the unrevised returns of the recent Census to be 4,522,628 persons in the middle of the year. In the three preceding months the rates were 4·3, 4·1, and 4·3 per 1000 respectively. The lowest rates last month were recorded in Paddington, Kensington, the City of Westminster, Stoke Newington, and Lewisham; and the highest rates in Holborn, Finsbury, Bethnal Green, Southwark, and Greenwich. The prevalence of

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON DURING JUNE, 1911.

(Specially compiled for THE LANCET.)

CITIES AND BOROUGHS.	Estimated population in the middle of 1911.	NOTIFIED CASES OF INFECTIOUS DISEASE.										DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.‡								Deaths from all causes.	Death-rate per 1000 living.†
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cerebro-spinal meningitis.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.*	Whooping-cough.	Enteric fever.	Diarrhœa and enteritis (under 2 years).	Total.	Annual rate per 1000 persons living.		
LONDON	4,522,628	1	683	466	—	48	1	17	286	8	1510	4·4	—	103	13	35	62	6	73	292	0·8	3859	11·7
West Districts.																							
Paddington	142,541	—	15	7	—	3	—	—	4	—	29	2·7	—	2	—	—	1	—	3	6	0·5	113	11·0
Kensington	172 296	—	18	9	—	1	—	—	6	—	34	2·6	—	2	—	—	4	—	5	11	0·8	136	11·1
Hammersmith	121,837	—	13	16	—	—	—	—	3	—	32	3·4	—	—	—	—	4	1	3	8	0 9	103	11·5
Fulham	153,726	—	29	24	—	1	—	2	6	1	63	5·3	—	2	—	1	2	—	3	8	0·7	126	11·2
Chelsea	66,218	—	14	2	—	—	—	—	3	—	19	3·7	—	1	—	—	—	—	2	3	0·6	50	10·2
City of Westminster	159 709	—	16	11	—	2	—	1	6	—	36	2·9	—	3	—	2	5	2	—	12	1·0	128	11·7
North Districts.																							
St. Marylebone	117,844	—	8	12	—	1	—	—	10	—	31	3·4	—	1	—	1	2	—	4	8	0·9	110	13·0
Hampstead	85,599	—	5	15	—	—	—		2	—	23	3·5	—	1	—	1	—	—	—	2	0·3	46	7 9
St. Pancras	218,031	—	41	20	—	7	—	—	8	—	76	4·5	—	4	1	2	3	—	2	12	0·7	206	12 9
Islington	327,234	—	64	27	—	2	—	—	16	2	111	4·4	—	3	1	2	6	—	9	21	0·8	294	12·2
Stoke Newington	50,669	—	5	3	—	—	—	—	2	—	10	2 6	—	2	—	—	1	—	—	3	0·8	37	9·9
Hackney	222,674	—	18	20	—	—	—	—	27	2	67	3·9	—	6	2	1	1	—	3	13	0·8	186	11·4
Central Districts.																							
Holborn	49,084	—	23	9	—	—	—	—	2	—	34	9·0	—	1	1	—	—	1	—	3	0·8	54	15·4
Finsbury	87,639	—	22	17	—	1	—	1	17	—	58	8·6	—	2	1	1	1	—	1	6	0·9	89	13·7
City of London	19,475	—	1	2	—	1	—	—	2	—	6	4·0	—	—	—	—	—	—	1	1	0·7	17	12·5
East Districts.																							
Shoreditch	111,284	—	7	20	—	1	—	—	7	—	35	4·1	—	6	—	2	—	—	3	11	1·3	119	14·6
Bethnal Green	128.247	—	12	27	—	1	—	—	13	1	54	5·5	—	5	1	2	—	—	2	10	1·0	116	11·9
Stepney	279,560	—	33	37	—	1	—	1	42	—	114	5·3	—	27	3	3	4	—	6	43	2·0	286	13·9
Poplar	162,290	—	27	19	—	6	—	—	11	—	63	5·1	—	11	—	2	1	—	4	18	1·4	162	13·4
South Districts.																							
Southwark	191,595	—	49	23	—	1	—	—	18	—	91	6·2	—	7	—	1	3	—	3	14	1·0	195	13·9
Bermondsey	125,840	—	17	21	—	2	—	—	5	—	45	4·7	—	—	—	1	8	—	2	11	1·1	136	14·4
Lambeth	298,032	—	33	28	—	2	—	2	12	—	77	3·4	—	4	—	3	3	—	4	14	0·6	232	10·4
Battersea	167,765	—	25	12	—	2	—	—	12	2	53	4·1	—	4	2	4	1	—	3	14	1·1	155	12·9
Wandsworth	313,389	—	60	24	—	3	—	2	8	—	97	4·0	—	1	—	4	5	1	6	17	0·7	217	9·5
Camberwell	261,407	—	38	19	—	2	1	2	13	—	75	3·7	—	2	—	—	3	—	1	6	0·3	176	9·1
Deptford	109,475	—	17	11	—	—	—	1	13	—	42	5·0	—	2	—	—	3	—	1	6	0·7	98	12·3
Greenwich	95,982	—	32	8	—	—	—	3	6	—	49	6·7	—	2	—	—	—	—	2	4	0 5	74	10·3
Lewisham	161,677	—	15	13	—	2	—	—	5	—	35	2·8	—	—	1	1	1	1	—	4	0·3	102	8·5
Woolwich	121,509	—	26	10	—	4	—	1	7	—	48	5·1	—	2	—	1	—	—	—		0·3	96	11·
Port of London	—	1	—	—	—	2	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—

* Including membranous croup. † The death-rates are corrected for variations in sex- and age-constitution of the populations of the several boroughs, the population of England and Wales being taken as the standard. ‡ Deaths from "typhus fever" and "other continued fevers" are not now distinguished in the Registrar General's weekly returns; these two columns are therefore omitted from the Table.

scarlet fever showed a slight increase compared with that in the preceding month; among the various metropolitan boroughs this disease was proportionally most prevalent in Chelsea, Holborn, Finsbury, Southwark, Greenwich, and Woolwich. The number of scarlet fever patients under treatment in the Metropolitan Asylums Hospitals, which had been 1012, 1018, and 1128 at the end of the three preceding months, had further risen to 1206 at the end of last month; the weekly admissions averaged 162, against 124, 127, and 160 in the three preceding months. Diphtheria was rather more prevalent than in other recent months; this disease showed the greatest proportional prevalence in Fulham, Hampstead, Holborn, Finsbury, Shoreditch, Bethnal Green, and Bermondsey. The Metropolitan Asylums Hospitals contained 771 diphtheria patients at the end of last month, against 881, 827, and 801 at the end of the three preceding months; the weekly admissions averaged 102, against 107, 97, and 100 in the three preceding months. The prevalence of enteric fever showed a slight increase over that recorded in any of the three preceding months; the greatest proportional prevalence of this disease was recorded in Paddington, St. Pancras, Poplar, Bermondsey, and Woolwich. The Metropolitan Asylums Hospitals contained 33 enteric fever patients at the end of last month, against 22 and 35 at the end of the two preceding months; the weekly admissions averaged 6, against 5 in each of the two preceding months. Erysipelas was proportionally most prevalent in St. Marylebone, Hackney, Finsbury, Bethnal Green, Stepney, Southwark, and Deptford. The 17 cases of puerperal fever notified during the month included 3 in Greenwich and 2 each in Fulham, Lambeth, Wandsworth, and Camberwell. The 8 cases notified as cerebro-spinal meningitis included 2 in Islington, 2 in Hackney, and 2 in Battersea.

The mortality statistics in the table relate to the deaths of persons actually belonging to the several boroughs, the deaths occurring in institutions having been distributed among the several boroughs in which the deceased persons had previously resided; the death-rates from all causes are further corrected for variations in the sex- and age-constitution of the populations of the several boroughs. During the four weeks ending July 1st the deaths of 3859 London residents were registered, equal to a corrected annual rate of 11·7 per 1000, against 17·3, 16·7, and 13·2 in the three preceding months. The death-rates last month ranged from 7·9 in Hampstead, 8·5 in Lewisham, 9·1 in Camberwell, 9·5 in Wandsworth, and 9·9 in Stoke Newington, to 13·7 in Finsbury, 13·9 in Stepney and in Southwark, 14·4 in Bermondsey, 14·6 in Shoreditch, and 15·4 in Holborn. The 3859 deaths from all causes included 103 from measles, 13 from scarlet fever, 35 from diphtheria, 62 from whooping-cough, 6 from enteric fever, and 73 (among children under two years of age) from diarrhœa and enteritis. The lowest death-rates from these diseases in the aggregate were recorded in Paddington, Hampstead, Camberwell, Greenwich, Lewisham, and Woolwich; and the highest rates in Shoreditch, Stepney, Poplar, Bermondsey, and Battersea. The 103 deaths from measles were 76 below the corrected average number in the corresponding period of the five preceding years; this disease was proportionally most fatal in Stoke Newington, Shoreditch, Bethnal Green, Stepney, and Poplar. The 13 fatal cases of scarlet fever showed a decline of 19 from the corrected average number, and included 3 in Stepney, 2 in Hackney, and 2 in Battersea. The 35 deaths from diphtheria were slightly in excess of the corrected average number; the greatest proportional mortality from this disease was recorded in the City of Westminster, Shoreditch, Bethnal Green, Poplar, and Battersea. The 62 fatal cases of whooping-cough were 39 fewer than the corrected average; this disease was proportionally most fatal in Kensington, Hammersmith, the City of Westminster, Bermondsey, and Deptford. The 6 deaths from enteric fever showed a decline of 3 from the corrected average number, and included 2 in the City of Westminster. The 73 deaths from diarrhœa and enteritis among children under two years of age included 9 in Islington, 6 in Stepney and in Wandsworth, 5 in Kensington, and 4 each in St. Marylebone, Poplar, and Lambeth. In conclusion, it may be stated that the aggregate mortality in London last month from the principal infectious diseases (excluding diarrhœa) was 37·4 per cent. below the average.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

IN accordance with the provisions of Order in Council of April 1st, 1881, Fleet-Surgeon John Kirkup Robinson has been placed on the retired list, at his own request (dated July 18th, 1911).

The following appointments have been notified:—Fleet-Surgeons: E. T. P. Eames, to the *Gibraltar*, and to the *Cambrian*, on recommissioning; J. D. Hughes, to the *Devonshire;* Edward C. Ward, to the *New Zealand*, on commissioning; J. H. Stenhouse, to the *King Edward VII.*, on recommissioning; and E. C. Cridland, to the *Irresistible*, on recommissioning. Staff-Surgeons: H. H. Gill, to the *Cæsar;* K. H. Jones to the *Africa;* and E. S. Tuck, to the *Illustrious*, on recommissioning. Surgeons: M. C. Mason, to the *Gibraltar* and to the *Cambrian*, on recommissioning; F. G. Wilson, to the *Colossus*, on commissioning; G. H. S. Milln and H. B. German, to the *New Zealand*, additional, on transfer of flag; Percy F. Minett, to the *Vivid*, additional, for disposal; C. Ross, to the *Pembroke*, additional, for disposal, and to Royal Naval Hospital, Chatham, vice Wilson, on the *Colossus* commissioning; J. A. Thompson to the *Hercules*, on completing; A. T. Rivers, to the *King Edward VII.*, on recommissioning; A. H. Joy, to the *King Edward VII.*, additional, on transfer of flag, and H. H. Ormsby, to the *Crescent*, and to the *Fiora*, on recommissioning.

Fleet-Surgeon James Henry Beattie has been placed on the Retired List (dated July 24th, 1911).

ROYAL ARMY MEDICAL CORPS.

Colonel R. I. D. Hackett, senior medical officer at Pretoria, has been transferred to India and appointed Principal Medical Officer of the Karachi Brigade. Lieutenant-Colonel H. M. Sloggett, at present serving at Aldershot, has been placed under orders for a tour of service at Malta. Lieutenant-Colonel A. Dodd, in medical charge at Chester, has been selected to succeed Lieutenant-Colonel H. J. Barratt as Senior Medical Officer in the Straits Settlements. Lieutenant-Colonel J. Battersby, who recently retired under the age rule from the Royal Army Medical Corps, has been appointed a Justice of the Peace for the county Tyrone by H.E. the Lord Lieutenant of Ireland. Lieutenant-Colonel R. Kirkpatrick, in medical charge at Devonport, has been detailed for a tour of service abroad during the coming trooping season. Major C. A. Stone, lately commanding the station hospital at Bellary, Madras Presidency, has joined for duty at Cosham. Major F. Smith, D.S.O., sanitary specialist to the Second (Rawal Pindi) Division, has been transferred from Rawal Pindi to Murree. Major P. H. Collingwood, from Crownhill, has taken up duty at Devonport. Major H. M. Nicholls, from Colaba, has been appointed to the Station Hospital at Deolali. Major M. P. C. Holt, D.S.O., specialist in advanced operative surgery to the Sirhind Brigade, has been appointed to the civil medical charge of Kasauli Cantonment. Major J. J. W. Prescott, D.S.O., adjutant of the Royal Army Medical Corps School of Instruction at Newcastle, has been detailed by the War Office for a tour of service with the Southern Army in India. Major G. M. Goldsmith has arrived home on leave of absence from Maymyo, Burma. Major P. J. Probyn, D.S.O., on completion of a tour of service in China, has been appointed to the Irish Command. Major G. B. Riddick has been granted one year's extension of his tour of service in India by H.E. the Commander-in-Chief. Captain A. F. Carlyon, from Devonport, has joined for duty at Okehampton. Captain C. E. Fleming, from the Royal Herbert Hospital at Woolwich, has taken up duty at the Military Hospital, Colchester. Captain H. R. Bateman has been transferred from the London District to the Shorncliffe Brigade. Captain W. F. Tyndale, C.M.G., from Dublin, has been placed in medical charge of the effective troops at Kilbride Camp. Captain J. B. Clarke, on return to duty from leave of absence, has been appointed Surgical Specialist at Colchester. Captain G. A. Kempthorne, from Piershill, has been posted to Glencorse. Captain J. H. Campbell, on return from a tour of service in India, has been attached to the Western Command. Captain L. V. Thurston, from Queenstown, has been placed in medical charge of the effective troops at Fethard. Captain G. B. Churchill has been permitted to extend his service in

India for a further period of one year by H.E. the Commander-in-Chief. Captain H. W. Long has left the London District for a further period of service on the West Coast of Africa. Captain F. J. Stuart has been appointed a Specialist in the Prevention of Disease and placed in charge of the Bacteriological Research Laboratory at Fyzabad. Captain W. Mitchell, from Ambala cantonment, has taken up duty at the Military Hospital, Subathu, Simla District. The following Lieutenants have been selected by the War Office to proceed to India for duty with the Northern Army during the coming trooping season: S. S. Dykes, W. H. O'Riordan, P. S. Tomlinson, F. W. M. Cunningham, A. S. M. Winder, and V. P. Hutchinson.

INDIAN MEDICAL SERVICE.

Colonel G. W. P. Dennys has taken over the appointment of Inspector-General of Civil Hospitals in the Central Provinces. Lieutenant-Colonel A. Buchanan has taken up duty as Civil Surgeon at Amraoti. Lieutenant-Colonel C. F. Fearnside has been appointed by the Home Department of the Government of India for duty in the Madras Presidency. Lieutenant-Colonel P. J. Lumsden, agency surgeon in Beluchistan, has been granted seven months' leave of absence home from India. Major J. M. Woolley has been appointed Senior Medical Officer at Port Blair. Major F. N. Windsor has been confirmed in his appointment as Chemical Examiner, Bengal Presidency, and Professor of Chemistry in the Medical College, Calcutta. Major A. T. Gage, superintendent of the Royal Botanic Gardens at Calcutta and of cinchona cultivation in Bengal Presidency, has been granted two and a half months' privilege leave of absence. Major B. H. Deare, civil surgeon at Darjeeling, has been appointed to officiate as First-class Civil Surgeon during the absence on leave of Lieutenant-Colonel D. G Crawford. Captain R B. S. Sewell has been appointed Surgeon Naturalist to the Marine Survey of India. Captain C. F. Marr, medical officer of the 90th Punjabis, has been selected to officiate as Medical Storekeeper to the Government of Bombay, in succession to Major F. E. Swinton, who has been granted eight months' leave of absence home from India. Captain Denham White has joined the staff of the Presidency General Hospital at Calcutta. Captain J. H. Burgess has been appointed Specialist in Advanced Operative Surgery to the Ninth (Secunderabad) Division.

TERRITORIAL FORCE.

Royal Army Medical Corps.

1st Home Counties Field Ambulance, Royal Army Medical Corps: Lieutenant Arthur T. Falwasser to be Captain (dated June 12th, 1911).

1st Lowland Field Ambulance, Royal Army Medical Corps: Neil MacInnes to be Lieutenant (dated June 19th, 1911).

3rd North Midland Field Ambulance, Royal Army Medical Corps: Lieutenant Philip W. Turnor resigns his commission (dated July 22nd, 1911).

3rd South Midland Field Ambulance, Royal Army Medical Corps: Charles Edward Kynaston Herapath to be Lieutenant (dated April 1st, 1911).

1st Northumbrian Field Ambulance, Royal Army Medical Corps: John Hare (late Cadet Lance-Corporal, Durham University Contingent, Senior Division, Officers Training Corps) to be Lieutenant (to be supernumerary) (dated May 27th, 1911).

Yorkshire Mounted Brigade Field Ambulance, Royal Army Medical Corps: Major William K. Clayton to be Lieutenant-Colonel (dated Jan. 1st, 1911).

2nd West Riding Field Ambulance, Royal Army Medical Corps: Major William McG. Young to be Lieutenant-Colonel (dated April 1st, 1911).

THE ST. JOHN AMBULANCE BRIGADE.

The Duke of Connaught, Grand Prior of the Order of the Hospital of St. John of Jerusalem, inspected on July 22nd the members of the Prince of Wales's Corps (London District) of the St John Ambulance Brigade in Hyde Park. The total number of all ranks on parade was 1136, including 182 nursing sisters. The Duke of Connaught, in expressing his great satisfaction at the smartness of the brigade, said that the St. John Ambulance Association, which had much increased in numbers since it was first formed, was a great asset to the nation, which owed to the officers, men, and nursing sisters a debt of gratitude for the splendid work which they were doing.

Correspondence.

"Audi alteram partem."

THE POSITION OF THE PRESENT REFORM MOVEMENT IN ANÆSTHETICS.

To the Editor of THE LANCET.

SIR,—With your kind permission I should like to be allowed to make a few remarks on the three letters which have recently appeared in your columns upon the above subject.

The first of these letters, from Dr. J. F. W. Silk, appeared in your issue of July 15th. All I can say in reply to such a letter is that I deeply regret to find that there is anyone of Dr. Silk's position who is so unmindful of the high character and responsibilities of the branch of practice in which he is engaged that he is content to allow that branch of practice to remain in its present unsatisfactory position and to associate himself with those ignorant and unqualified persons who at the present moment are permitted, by defects in our legislature, to render their fellow-beings unconscious by means of highly toxic drugs. None are so blind as those who will not see, and if Dr. Silk prefers to keep his shutters up and miss a sunrise which many of us hope in our declining years to look back upon with pleasure he is perhaps more to be pitied than blamed.

The second letter in your last week's issue is from the pen of my old friend, Dr. George Foy, whose contributions to the subject of anæsthesia are so well known. I mention the fact that Dr. Foy is an old friend of mine because if I do not do so someone will discover the existence of this friendship and will address a special letter to you, Sir, concerning it. Those members of the profession, however, who know Dr. Foy will realise that what he says is dictated by a desire to further a cause in which he is interested, and not by any personal considerations. I have no hesitation whatever in endorsing his contention that any seeming lack of enthusiasm in the reform under consideration is due to the fact that the passing of the measure we desire is a mere matter of time.

The third and last letter follows that of Dr. Foy in your issue of July 22nd, and is written by Mr. H. Nelson Hardy in reply to my letter in THE LANCET of July 1st. I am glad to find that Mr. Nelson Hardy admits that if there is to be legislation at all "it should commence by rendering it illegal for unqualified persons to administer such potent drugs except under the immediate supervision of a qualified medical man." The admission puts the seal, so to speak, upon the main question, for, as pointed out in your annotation of July 8th, it has already been decided by all the leading academic and professional bodies concerned that legislation in regard to anæsthetics is highly desirable in the public interest. The only outstanding difference, therefore, between Mr. Nelson Hardy and myself is in regard to methylated chloroform, and I think, perhaps, I may be able to influence Mr. Nelson Hardy in his opinions as to this particular brand by relating the following episode, particularly as those concerned in it were the very individuals upon whose dicta Mr. Nelson Hardy seems to rely. I happened to be one of those who some years ago were invited to witness (1) the administration of absolutely pure chloroform—i.e., chloroform obtained in a crystalline form by freezing methylated chloroform, and (2) the deadly effects of the resulting mother liquor. An animal—I believe a dog—was obtained, and in order that it might be subsequently subjected to the influence of the dangerous mother liquor it was anæsthetised as a preliminary by the pure chloroform. Unfortunately the animal succumbed under the influence of the pure drug, and it therefore became necessary to anæsthetise another animal. This having been done—I believe with ether—some of the highly toxic mother liquor was introduced into its circulation, in order to demonstrate the fatal results that would immediately follow. Unfortunately, however, for those responsible for the demonstration, it was found impossible to kill the animal with the mother liquor. Knowing as we do the uncertainties of demonstrations in anæsthesia, we must not, of course, attach too much importance to the incident. At the same time it is not without its significance. In the light of recent experiments it is practically certain that the first animal died from a high vapour concentration—such a concentration, in fact, as would kill in

spite of the purest drug being employed. I express no opinion as to the failure of the mother liquor to destroy the second animal. I merely quote the circumstances as observed by me on the occasion in question. In conclusion, I would submit to Mr. Nelson Hardy and to all those who hold strong views as to methylated chloroform being responsible for difficulties and accidents, that if they wish to make out a case they must be prepared to explain the fact that a large number of anæsthetists annually conduct thousands of chloroform administrations with methylated chloroform without accidents. At the same time I should welcome any inquiry that would help to settle this particular point and would gladly coöperate in any such investigation.

I am, Sir, yours faithfully,

London, July 24th, 1911. FREDERIC HEWITT.

SALVARSAN ("606") AND MERCURY IN THE TREATMENT OF SYPHILIS.

To the Editor of THE LANCET.

SIR,—In THE LANCET of July 8th, 1911, p. 121, there appeared several replies to an article I wrote on the above subject in your issue of June 24th, p. 1691. The writers, being supporters of salvarsan, naturally tried to ignore the patent fact that the article was primarily written to vindicate the utility of mercury in the treatment of syphilis, as well as to show that the alleged superiority of salvarsan had not by any means as yet been demonstrated either on clinical grounds or on pathological tests if we accept a negative Wassermann as our test. Neisser found the test negative in only 10 per cent. of cases after salvarsan. Other workers have had somewhat similar experiences. I also agreed to differ in THE LANCET of Sept. 25th, 1909, and Jan. 8th, 1910, with Dr. Stopford-Taylor and Dr. R. W. Mackenna in supporting the superiority of inunctions over grey oil injections of mercury in the treatment of early syphilis. They now accuse me of unreasonable antipathy to injections of mercury in order to discount the views on injection of salvarsan. I still use grey oil injections, however, for *military convenience* for out-patients, but Dr. Stopford-Taylor and Dr. Mackenna, who formerly extolled mercurial injections to the sky, have abandoned their first love for salvarsan.[1] The unreasonable antipathy to mercurial injections, therefore, would not appear to rest so much with me as with the writers, who no longer use them. I have not "changed my medical politics with my coat."

From a *clinical* standpoint, my views on inunctions were expressed years before the days of Schaudinn's valuable discovery or the Wassermann-Neisser-Bruck reaction. Mr. H. W. Bayly, another of my critics, speaking of Wassermann tests, quite recently informed us "that 82 per cent. of cases treated by inunction and 35 per cent. of cases treated by injection showed some effect of treatment after only three months. As far as I have gone, therefore, my conclusion is that inunction is the best form of administration of mercury, and I gather that Mr. McDonagh's large continental experience leads him also to this opinion. Calomel injection seems much better than pill treatment, but not so good as inunction, as estimated by the Wassermann reaction. Potassium iodide and the arylarsenates have no effect on the Wassermann reaction, as far as three months' treatment is concerned."

Mr. J. E. R. McDonagh (London Lock Hospital), at the meeting of the British Medical Association in 1910, records valuable testimony when he says that a patient "should, before the disease has become generalised, receive the most active and vigorous form of treatment possible. Mercury, in the form of inunctions, is more potent in this respect than when given in any other form. ..... Working at the Wassermann reaction on the continent I found that it was *almost a rule* to obtain a '*negative*' reaction after a patient had had a course of *inunctions*, or less frequently injections." As Mr. McDonagh has applied the Wassermann test in over 5000 cases his words carry very great weight. In a series of cases at Malta in 1910 70 per cent. gave a positive reaction after a full course of 2–3 years' mercurial injections. Cases on their second, third, and fourth courses of injection were positive in 80 per cent.

I quoted only a few of the reported cases of optic neuritis and optic atrophy following the use of salvarsan. The alleged *suggestio falsi* is non-existent in my article, but apparently has originated in the inner consciousness of Dr. Stopford-Taylor and Dr. Mackenna, who, in their zeal for salvarsan, deny these recorded cases. They are vouched for, however, by persons of unimpeachable good faith and experience. The fact that Dr. Stopford-Taylor met with one or two cases of optic neuritis under mercurial treatment, presumably by injections, does not invalidate the fully recognised fact that numerous deaths and other toxic lesions have occurred under salvarsan. These have increased in numbers since I wrote my article, and there are several more deaths, bringing the number to 34 recorded cases in a year.

I think most people will also concur in the general accuracy of my statement—"that syphilis, unlike cancer, sleeping sickness, and kala-azar, is not a fatal disease." I do not think that because I hold this view I necessarily "live in a fool's paradise," as suggested by Dr. Stopford-Taylor and Dr. Mackenna. The inference should be quite clear that the above three *necessarily* fatal diseases might possibly warrant experiment with a dose of a highly poisonous drug, which, according to Dr. Stopford-Taylor and Dr. Mackenna, is capable of killing three adults, and, as in the case of chloroform, the patient commonly signs a book before taking it owing to the risk. Owing to the fact of there being at present only two cases of syphilis in hospital at Malta, and 160 performing full military duty without any signs of the disease, in a garrison of 6800 men, I am perfectly justified on the facts in vindicating to the uttermost the utility of mercury and potassium iodide in common with a vast number of other persons, if we can judge by recorded testimony in medical literature.

In reply to Mr. Bayly, who questions my views and experience on mercury and inorganic arsenic by the mouth, I reported the personally recorded observations of 18 years' specialised clinical experience without a death which enabled me to take a level-headed view of the proposition. As regards salvarsan, I quoted views and experience of other persons, as independent *primâ facie* testimony is necessarily more convincing to unprejudiced minds. I see that at a discussion on the recent position and treatment of syphilis (*Proceedings of the Royal Society of Medicine*, July, 1910), at which both Mr. Bayly and I spoke, he (Mr. Bayly) states "that he does not find Dr. Fleming's technique so reliable as Wassermann's original technique, as *modified* by me."

Mr. Boas recently lays great stress upon the importance of carrying out all Wassermann's reactions in a quantitative manner—a method which is impossible in the case of all the ordinarily suggested *modifications*. Mr. Boas obtained much better results, and stated that the Wassermann reaction has not, and *will not, obviate the necessity for clinical observation* in syphilis, but it must be undertaken by a person well versed in serological technique if the results are to be taken as being beyond reproach. In further reply to Mr. Bayly, Ehrlich insists that after an injection of "606" the patient should stay in hospital to prevent accidents, &c. In the army we ordinarily deal with very early syphilis, but how could cases ever be discharged from hospital in 24 hours, as inferred by Mr. Bayly, with unhealed chancres or contagious lesions? But admitting only 10 per cent. relapses under salvarsan is another indirect way of claiming 90 per cent. beneficial results. I conclusively showed, and others have shown, that as regards relapses the results under mercurial treatment are as good as or better than salvarsan. The small band of English workers who have dared to criticise salvarsan number three according to Mr. Bayly—namely, Mr. Ernest Lane, Mr. C. F. Marshall, and myself.

In conclusion, I will only refer to the valuable papers of Mr. Pusey and Mr. McKenna of Chicago in the *Journal of the American Medical Association*, January and March, 1911, which are instructive. Mr. Pusey states "that Ehrlich's hopes for '606' were based on animal experiments. Ehrlich recognised, as do others, that experiments on syphilised animals with the agent were not conclusive for man, and he turned over the remedy to clinicians for trial in human syphilis." He quotes Fischer, Lesser, Gaucher of Paris, and Finger of Vienna in support of his view "that salvarsan does not cure syphilis, and that we are not justified in holding out to patients any hope of cure by it, but it may prove a useful remedy, with mercury, however, as before, our chief dependence."

Mr. McKenna of Chicago states: "My own experience with

[1] THE LANCET, May 27th, 1911, p. 1412.

salvarsan and the observations I have made of this work, carried on both in this country and in Europe, lead me to the conviction that under no circumstance should salvarsan be used without also using mercury or the iodide."

John Hunter, in 1786, condemned the "ungrateful and unsettled mind of man" in his endeavour to obtain a substitute for mercury in the treatment of syphilis. He wrote: "If there is such a thing as a *specific* mercury is one for the venereal disease ..... yet mankind are in pursuit of other specifics for the disease, as if specifics were more common than diseases." His clinical observations on induration in the chancre, in my opinion, as a guide to early syphilis, is a vastly superior and more reliable sign than a *modified* Wassermann test, but even under the best auspices the margin of error with Wassermann tests is still very large, which accounts for Mr. Boas's craving for *clinical* confirmation of syphilis. I sympathise with this view, and I suggested long ago the necessity for standardising the test; at present there is a very great discrepancy in the results of various observers, and mistakes are not infrequent.

In reply to Mr. Ernest Scholl *pro* Meister, Lucius, and Brüning, Limited, who states that he writes with Ehrlich's authority, up to August, 1910, there were only 1000 cases *published* which had been treated by salvarsan. According to Mr. Bayly, Erhlich definitely stated (Oct. 5th, 1910): "I have before me the reports on over 9000 cases treated with salvarsan." Mr. Scholl says: "Salvarsan was only placed on the market generally (not only on the English market) on Dec. 15th, 1910, after 60,000 doses had been supplied free, with which about 40,000 cases were treated." Ehrlich says 9000 cases treated, but Mr. Scholl says 40,000 treated, which is a large difference. Where are the *cases* published? From August to October or even December, 1910, is a short period of time, as claimed by me. This patent preparation is registered in England under the trade name of salvarsan. The high price tends to limit criticism by precluding its more general use by medical practitioners. If, as Mr. Scholl says, 60,000 *free* doses were first given away, the fact of a free issue has possibly necessitated the present high cost, which is 7*s.* for a single dose. If humanity at large, as is claimed, is to be benefited, surely this could have been better effected by putting the preparation on the market at a much lower price.

My opinion is that mercury has been conclusively proved to be vastly superior to salvarsan in *average* cases of syphilis whether judged from a clinical standpoint or Wassermann tests. As an auxiliary drug in the treatment of syphilis, salvarsan will no doubt be useful in selected cases, but mercury comes first, and potassium iodide is a close rival.

I am, Sir, yours faithfully,

Malta, July 17th, 1911. H. C. FRENCH, Major R.A.M.C.

To the Editor of THE LANCET.

SIR,—I have read Mr. Bayly's letter in THE LANCET of July 22nd, and hasten to express my thanks to him for having designated me as an "authority of eminence" and also an eminent authority within the space of a few lines; though the vocabulary of his eulogies appears to have its limitations, I take the compliments for exactly what they are worth. In conclusion, I would merely remark that if Mr. Bayly had any genuine desire to ascertain my attitude towards salvarsan he need only have given himself the trouble to pay one visit to the Male Lock Hospital to which, as he has already informed your readers, he is the pathologist. He would then have made the surprising discovery that I had been in the habit of using salvarsan in appropriate cases ever since it was first placed on the market.

I am, Sir, yours faithfully,

Queen Anne-street, W., July 24th, 1911. J. ERNEST LANE.

INFECTIOUS DISEASE IN SCHOOLS.

To the Editor of THE LANCET.

SIR,—The regulations issued by many educational authorities with regard to the periods of exclusion of infected children and of contacts in elementary schools appear to me to be in some respects so exacting as to defeat their own object. With the amount of medical supervision at present available the duty of excluding children on account of illness falls almost entirely on the school teachers. Whilst it is no doubt our duty as school medical officers to see that the periods of exclusion are ample, and to err, if at all, on the side of safety, it is essential that we enlist the support of the head teachers in the work and that they should appreciate the necessity of the procedure. The teachers and the education authority are anxious to keep up the average attendance, and it behoves us as school medical officers to give this aspect of the question every consideration, having due regard to the health of the children.

The rules adopted by many education authorities are in some respects much more strict than the code adopted by the Medical Officers of Schools Association, who might be expected to adopt an adequate margin of safety. Thus in the trivial disease mumps the usual rule in elementary schools is to exclude an affected child for a month, whereas the Schools Association are content with a fortnight. Again, in the case of measles the corresponding periods are four weeks and two weeks respectively. In another trivial disease, German measles, an exclusion of three and four weeks is demanded, whilst the Medical Officers of Schools Association require only 10 days from the appearance of the rash. If mumps and German measles are only infectious for periods of 14 and 10 days respectively, it is obviously unnecessary to keep the children away on their account for a longer period. It is, of course, true that infants with lung complications after measles may require a full month or more before they are in a fit state to resume attendance, but older children are usually fit after a much shorter time.

I am not at all sure that it would not be better in the interests of the school under existing circumstances to do away with exclusion of contacts in the case of the non-fatal diseases—chicken-pox, German measles, and mumps. The procedure is comparatively useless when parents freely send their children to school with the diseases fully developed. So long as the teachers find children in this condition present in the assembled class, it can hardly be expected of them that they will be enthusiastic in excluding contacts in infected families for three weeks, with the consequent disastrous results to their attendance. The periods of exclusion of infected children also should in all cases be reduced to a safe minimum in order to encourage the teachers to watch for and to exclude at once the suspicious cases in the earlier stages of the disease.

I am, Sir, yours faithfully,

Guildford, July 19th, 1911. R. W. C. PIERCE.

VACCINATION IN REGARD TO LIFE ASSURANCE.

To the Editor of THE LANCET.

SIR,—The position of your correspondent, Dr. C. Killick Millard, is a little puzzling to the ordinary reader. On the one hand, he regards vaccination as a serious drawback to the detection of early cases of small-pox, and suggests that we should be better without it. On the other hand, he "regards vaccination as the greatest triumph of preventive inoculation, and would never dream of attempting to fight small-pox as a medical officer of health without its aid." He advocates vaccination of contacts, and is prepared as a *dernier ressort* to recommend the immediate vaccination of the whole community. Are not these two pronouncements somewhat inconsistent with each other? Will not the vaccination of contacts render these persons dangerous in the future? One trembles to think of what may be the result in 15 or 20 years' time of the suggested wholesale vaccination of the community. Perhaps, however, he is not serious in this and does not believe that the necessity will ever arise—at all events in Leicester. The whole tenour of his letter supports this idea. Leicester has been anti-vaccinationist for a quarter of a century and Leicester still lives. It is true there have been a few outbreaks—a few hundred cases and a few deaths—but these are mere trifles not worthy of serious consideration compared with the great cost of general vaccination and revaccination.

Well it must be admitted that Leicester has suffered less from small-pox than some of us think she deserves. One can imagine a burglar who has lived handsomely by his profession for a quarter of a century and yet who, by great wariness, combined with extraordinarily good luck, has never been convicted of anything more serious than stealing a spoon.

One can imagine also the pride he will display among his friends and the contempt he will express for the man who lives by mere work. And yet, after all, his would-be imitators often find that burglary is not the safest and most profitable of professions.

But, seriously, one would like to know what it is that Dr. Millard really wants now that the country generally has decided to follow the lead of Leicester. Does he propose to prohibit vaccination, under a penalty, except where it is recommended by a medical officer of health? Because if not (and possibly even if so) there will still be many children vaccinated who will grow up and possibly take small-pox in a mild form and consequently spread it. Dr. Millard makes much of the case of "the child, Annie L., who caused the outbreak in the Mile-End Infirmary resulting in 30 cases with eight deaths." He seems to hold this child, or those who caused her to be vaccinated, personally responsible for the outbreak! Does it not occur to him that if Annie L. *and the whole community among whom she lived* had been unvaccinated probably 50 others would have taken the disease from the source, whatever it may have been, from which she was infected? Of course, Annie L. would probably have had the disease in a more severe and recognisable form, but equally probably the whole 50 would not.

Small-pox is not *always* a severe disease even among the unvaccinated, although it is so much more frequently than among the vaccinated. The antivaccinationists of Leicester could have told Dr. Millard this. I have known cases of small-pox mistaken for chicken pox in unvaccinated children, even in the presence of an outbreak. The real reason why mild cases of small-pox are often overlooked is because what Dr. Millard regards as the obsolete system of public vaccination has rendered small-pox so rare that the great majority of people, including not a few medical men, have never seen a case. Thanks, however, to the enlightened lead of Leicester and the docile following of the whole country, this lack of experience is likely before many years to be remedied. The country will then have the opportunity of "fairly trying" the Leicester system. I sincerely hope the result may not prove more disastrous than it has been at Leicester.

I am, Sir, yours faithfully,

F. W. STANSFIELD,
Public Vaccinator, Reading.

July 22nd, 1911.

To the Editor of THE LANCET.

SIR,—In your issue of July 22nd Dr. C. K. Millard, medical officer of health, Leicester, refers to Mr. W. H. Jalland's excellent article, part of which appeared in THE LANCET on June 17th, on Vaccination in Regard to Life Assurance. Dr. Millard lays great stress on the "missed" cases of small-pox, and speaks of them as essentially a product of vaccination. His theory appears to be that infantile vaccination could be safely discarded because of these missed cases. He mentions in support of his contention that the case which caused the recent outbreak of small-pox in Mile End directly resulting in 30 cases with eight deaths *was a vaccinated case*. "Will anyone assert," he asks, "that it is probable the same unfortunate mistake would have been made if the child had been unvaccinated?" Leicester provides a distinct answer to this in the affirmative, and the results in Leicester were much more disastrous than at Mile End.

Dr. A. Warner, the resident medical officer of the isolation and small-pox hospitals, and assistant medical officer of health of the borough of Leicester, contributed an article on cases selected from the Leicester epidemics to which Dr. Millard refers, in the *Practitioner*, October, 1904, concluding as follows:—

> Personally, I do not believe that unrecognised cases in those who have previously had small-pox or who have been previously vaccinated play an important part in the spread of the disease to the unvaccinated. For if there be a severe type of the disease prevalent the modification by passage through a single resistant person is not sufficient to make the disease appear very mild in the unvaccinated person. Therefore it is recognised and measures for its control adopted. But when the disease is of a very mild type it may be equally well unrecognised in the unvaccinated, for the mildness is then not so much due to increased resistance as to an attenuated infection. Indeed, the epidemic of 1903 was started simultaneously by two unvaccinated girls having unrecognised attacks, since when many similar cases have occurred.

Dr. Millard advocates drastic changes on the so-called experience of Leicester; he himself admits that the type of the epidemics there has been singularly mild and that the good fortune of Leicester under those circumstances might not have been secured under different conditions. If epidemics followed by hundreds of cases, as in Leicester, can occur, started by "missed" unvaccinated cases, where is the advantage of dropping infantile vaccination because of "missed" cases?

I am, Sir, yours faithfully,

ARTHUR DRURY, M.B., C.M. Edin.

Halifax, July 24th, 1911.

THE NATIONAL INSURANCE BILL.

To the Editor of THE LANCET.

SIR,—I should be glad if I might, through your courtesy, be permitted to state that a copy of the letter which was published from me in your last issue is being sent to all the Members of both Houses of Parliament. The following statement has been added to it by way of introduction, as they could hardly be expected to gauge without further explanation the extent of the infliction with which we are menaced. Even within our own ranks too few seem to realise the danger threatening the higher interests of the profession, or to understand that the great position to which she has earned every claim can only be secured for her by faithfulness to her own high standards.

THE NATIONAL INSURANCE BILL AND THE PROFESSION OF MEDICINE.

The other side of the question, the hearing of which should always precede legislation, has not been referred to in the Bill and has not yet been stated by any of its critics or even of its threatened victims: it has not been placed before our legislators. The Bill and all the discussions thereon have considered exclusively the development of the medical advantage to be obtained for the insurers and for the State, and the "*lowest figure*" at which State medical service could be exacted from the profession short of actual spoliation and sweating. But the advantage and the development which ought to be secured for the other contracting party under any even-handed State contract have not yet been even mentioned. They are in danger of being overlooked in a settlement affecting for an indefinite period the vital interests of the profession, and therefore of the nation. The letter in THE LANCET of July 22nd (p. 250) sets forth that part of the case for the profession which has been passed *sub silentio*. It calls attention to the solid acquired claims of the profession to "treatment with honour" far above those level terms of "equivalent advantage," which are now also being denied it under the clause of "the lowest figure." The only consistent attitude for the profession is "*Dedi ut des.*"

I am, Sir, yours faithfully,

WILLIAM EWART.

Upper Brook-street, W., July 25th, 1911.

A MEMORIAL TO DR. C. W. LONG.

To the Editor of THE LANCET.

SIR,—A letter just received from the eldest daughter of Dr. C. W. Long tells me that the University of Pennsylvania, of which Dr. C. W. Long was a graduate, proposes to place in its medical school a bronze memorial medallion of her father. The unveiling ceremony is to take place on March 30th, 1912. The Provost of the University (Dr. Smith) "believes that for the purpose in mind, that of accentuating our recognition of Dr. Long's achievement, the anniversary of the first use of ether in surgery (March 30th), will be the most suitable date."

The plaster model of the medallion, which is much admired, is the work of a medical graduate of the University, Dr. R. Tait McKenzie, who enjoys more than a local reputation as a sculptor.—I am, Sir, yours faithfully,

July 24th, 1911. GEORGE FOX.

A QUESTION IN EUGENICS.

To the Editor of THE LANCET.

SIR,—I desire to raise an interesting point which has recently presented itself to me, and to obtain an expression of opinion from the profession generally. To state the matter shortly, a man, who has an epileptic son 12 years of age, desired to have the lad sterilised to prevent him from having children if he should live to a marriageable age. The method of sterilisation is not the question—whether by castration, vasectomy, or X rays—but the legal and moral aspect of the case. Has a father the right to have his son sterilised, and is a surgeon legally and morally justified in carrying it out? I am, Sir, yours faithfully,

July 18th, 1911. M.S.

*** We leave these questions to our readers, in accordance with the writer's request.—ED. L.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Royal Visit to Edinburgh.

DURING the stay of Their Majesties at Holyrood, the King and Queen paid a private visit to Edinburgh Royal Infirmary on July 19th. They were received at the entrance by the Lord Provost of Edinburgh, the superintendent, Colonel W. P. Warburton, C.S.I., I.M.S. (retired), and the treasurer, Mr. W. S. Caw. As the visit was a private one no guests were invited, but there was a large gathering of the managers and medical staff. The King and Queen visited Ward 7 on the surgical side, where Lord Pentland presented Professor F. M. Caird, the surgeon-in-charge of the ward. The King named this ward "The King George Ward." On the medical side Ward 30 was visited, this ward and Ward 7 (surgical) being the only two unnamed wards in the infirmary. Dr. Byrom Bramwell and Dr. G. A. Gibson, the physicians-in-charge of the ward, were presented to Their Majesties, and the Queen before leaving named the ward "The Queen Mary Ward." Afterwards the King and Queen paid a visit to the kitchen and before leaving the institution they signed their names in the visitors' book. After leaving the infirmary Their Majesties drove along Teviot-place and halted at the steps of the Students' Union, where an address of loyalty was presented by the President of the Union. At Bruntsfield Hospital on the previous day Her Majesty the Queen had declared open the new wing of the hospital. At both institutions Their Majesties most kindly endeavoured to notice individually by a smile or bow or kind word every patient in the wards through which they passed, and at Bruntsfield Hospital Queen Mary, after having passed along the side of one ward and out through the verandah expressed a wish to return to the ward, as she had omitted to notice the patients on the other side. At the door of the hospital there was stationed a guard of honour of the Scottish Women's First Aid Corps The Queen, during her passage through the hospital, shook hands with the lady practitioners and other officials who were stationed in the various wards.

Honours to Edinburgh Medical Men.

Before the conclusion of the Edinburgh visit His Majesty conferred the honour of knighthood on Dr. Thomas Smith Clouston and Dr. James Ormiston Affleck, honours which, as the profession in Edinburgh know, are well deserved. Sir Thomas Clouston, who had a distinguished career as a student, early turned his attention to asylum work, and after holding for ten years the post of medical superintendent of the Cumberland and Westmorland Asylum, Carlisle, was appointed superintendent of the Royal Asylum for the Insane, Edinburgh, from which post he retired in 1908. During his tenure of office at the Royal Asylum he brought about great improvements in the treatment, nursing, and housing of the insane, perhaps the most outstanding achievement being the completion of Craig House about 21 years ago. During his administration the revenue derived from the better class of private patients increased from £8000 to £35,000 per annum. Three weeks ago he received the degree of LL.D. from the University of Edinburgh. The University of Aberdeen had already conferred on him a similar honour in 1907. He has held the offices of President of the Medico-Psychological Association, President of the Edinburgh Medico-Chirurgical Society, and President of the Royal College of Physicians of Edinburgh. Among his writings perhaps the best known are "Clinical Lectures on Mental Diseases" and "The Hygiene of the Mind." For a time he acted as editor of the *Journal of Mental Science*. He formerly held the post of lecturer on mental diseases at the University of Edinburgh. Sir James O. Affleck is well known in Edinburgh as a practitioner and consultant. He graduated as Doctor of Medicine in the University of Edinburgh in 1869. He later became lecturer on practice of medicine at Surgeons' Hall, and was appointed assistant physician to the Royal Infirmary. In 1885 he became full physician and lecturer on clinical medicine in the infirmary. He was thrice appointed examiner in medicine and clinical medicine at the University of Edinburgh, and for many years acted as examiner in medicine for the Royal College of Physicians. In 1908 he received the degree of LL.D. from the University of Edinburgh. He holds the post of consulting physician to the Edinburgh Royal Infirmary, to the City Hospital for Infectious Diseases, and to the Royal Maternity Hospital. He has for some time acted as one of the medical members of the board of management of the Royal Infirmary, and his interest in that institution and in the improvement of the equipment and of the work of the nursing staff has been of great value to the infirmary.

New Victoria Dispensary for Consumption.

As the result of the Coronation appeal for £12,000 to erect a new Victoria Dispensary for Consumption in Edinburgh, the first list of subscriptions, published on July 19th, showed that a sum of £3593 had been already subscribed.

Edinburgh Royal Infirmary: Presentation to Colonel Warburton.

At a meeting of the managers of Edinburgh Royal Infirmary held on July 24th a silver cup was presented to Colonel W. P. Warburton, I.M.S., C.S.I., on the occasion of his retiring from the position of superintendent of the infirmary. The presentation was made by the Lord Provost on behalf of the subscribers, past and present members of the board of management.

Occurrence of Phthisis in Glasgow.

The statistics for last year relating to phthisis in Glasgow are now available. Such statistics, however imperfect at present, are rendered possible by the fact that phthisis became compulsorily notifiable in Glasgow on Jan. 1st, 1910. During the year 3205 primary notifications were received, of which 1308 were from practitioners in private practice and 1897 from medical men in public practice. Other 385 cases were registered on information contained in the hospital admission and dismissal sheets of the Glasgow and Govan Parish Councils, and from the death registers, making in all a total of 3590 cases for the year, which is equal to an attack-rate of 4508 per million. The deaths registered during the same period numbered 1033, representing a death-rate of 1297 per million persons. In connexion with this it is interesting to note the examination of milk samples collected by the veterinary surgeon of the corporation during the year, for investigation with reference to the presence of tubercle bacilli. Of 675 samples of milk examined 466 were from country byres, 163 from town byres, and 46 from byres whence milk is supplied to the city fever hospitals. Of the samples from country byres, 6, or 1·29 per cent., were found to be tuberculous, while from town byres 2, or 1·23 per cent., were affected. Both rates are considerably below those of former years, but the authorities state that it would probably be erroneous to assume that this indicates a sudden and striking reduction in the prevalence of tuberculosis among cattle.

Small-pox Accommodation in Glasgow.

In the course of an exhaustive memorandum bearing on the requirements of Glasgow in regard to hospital accommodation, the medical officer of health for the city states that the most urgent demand is for small-pox accommodation because of the proved unsuitability of the present small-pox hospital site. During the past 40 years a permanent provision of 150 beds proved sufficient to meet all the requirements of the limited outbreaks of small-pox which occurred between the major prevalences of the early "seventies" and 1901. The population of those years, however, was better protected by infantile vaccination than is now the case, owing to the operation of the Vaccination Act of 1907. The proportion of children certified as successfully vaccinated in infancy reached on an average 86 per cent. during the "eighties" decade and 84·5 per cent. during the "nineties." As the result of the passing of the Vaccination (Scotland) Act of 1907, however, the proportion of children successfully vaccinated fell to 75 per cent., the numbers exempted through conscientious objection on the part of the parents being 2183 in 1908 and 2653 in 1909. Making allowances for increase of population during the next 20 years a present provision of 200 beds is required, but on a plan which will admit of rapid extension to 600 beds when occasion arises.

July 25th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The National Insurance Bill.

ON July 19th, at a meeting in Dublin of the members of the combined Irish Medical and British Medical Association Committee, it was decided to appoint a deputation to wait upon the Chancellor of the Exchequer and to assure him that they would prefer to be treated in the National Insurance Bill in the same way as their English and Scotch medical colleagues; but that if it was decided to eliminate medical benefits from the Bill, then, of course, they had nothing more to say. It is stated that in Ireland both the Trades Councils and the Friendly Societies (which are branches of the corresponding English institutions) are totally opposed to leaving out medical benefits, and, indeed, if this is done, it will lead to endless confusion. Suppose a worker under the scheme wants a certificate that he is unable to work, no one but a medical man can give this, and if the worker says he cannot afford to pay for it, who is to come to his assistance? Further, as the Friendly Societies are enquiring, if a tradesman who is under the scheme in England or Scotland comes to reside in Ireland, does he cease to be able to avail himself of medical benefits? One could understand the position of those who recommended that the Bill should not apply to Ireland at all; but to try to make it applicable, and yet, at the same time, to leave out the medical benefits, shows little constructive ability in legislation, or even knowledge of public health; because, though matters are improving, Ireland has still a high death-rate from tuberculosis, and hence has great need for sanatoriums. Yet if medical benefits are excluded, so will sanatoriums be also.

New Labour Ward for the Rotunda Hospital.

The governors of the Rotunda Hospital have issued a special appeal for funds to complete a new labour ward in the hospital without drawing on their ordinary funds. In the last 20 years the number of patients has increased from 1599 to 2596 in the year. It is proposed to equip as two labour wards a large ward formerly used as a nurses' dormitory at a cost of about £1400. The Master suggests that benefactors might make themselves individually responsible for special parts of the work.

Congress of the Royal Sanitary Institute.

The twenty-sixth annual Congress of the Royal Sanitary Institute was opened in Belfast on July 24th, some 700 being in attendance. There was a reception and luncheon, at which the Lord Mayor presided. The Lord Lieutenant of Ireland, the Earl of Aberdeen, spoke at the luncheon, opened the Health Exhibition, and in the evening installed Lord Dunleath as President, who gave a most interesting address on Sanitary Reform. Sir Lauder Brunton, who was to have presided in the Section of Sanitary Science and Preventive Medicine, was unavoidably absent. In his address, which was read by Professor Letts, he pointed out the progress in the prevention of infectious disease due to discovering sources of infection and isolating the infected. Plague, leprosy, and typhus had been all but abolished in this way. He feared that small-pox was not extinct but only dormant, and the increasing disregard of vaccination might result in a serious epidemic. Tuberculosis he expected to become in a few years as rare as leprosy. He referred to the close connexion between mental defect and tuberculosis, the nature of which demanded investigation. The fresh-air cult was sometimes carried to extremes. He endorsed the idea of a pure milk Bill, and urged caution before embarking on the expenditure of a lot of money on sanatoriums. In the section on Hygiene of Childhood Sir John W. Byers, in his presidential address, considered the national importance of bettering child hygiene demonstrated by the large proportion of the total number of deaths that occurred during infancy and the early years of life; by the fact that places having high infant mortalities continued to suffer a high mortality-rate during the first 20 years of life. He said that the amount of sickness in any place varied approximately with the number of deaths, and that a high infant mortality-rate denoted also a high infant deterioration. Hence, efforts to secure the best child hygiene would result not only in a lowered infant death-rate, but in increased physique and higher mental development of children, lessened sickness, and lessened mortality up to adult life. The influences causing wastage of infant life he classified as (1) those due to the habits and homes of the people; and (2) those due to maternal ignorance. It has been found at Belfast, even among bottle-fed babies, that in the most unhealthy districts the amount of infant mortality was far less among mothers who were intelligent, who realised their parental responsibility, and who were stimulated in their efforts by regular visits and instruction at babies' clubs. He asserted the necessity for cultivating the public "sanitary conscience," and urged the health authorities to increased efforts towards proper housing, abolition of overcrowding, provision of open-air spaces, good water-supply, adequate sewerage, pure food and milk, and proper measures against infectious diseases. He advocated also the training of women for the duties of maternity and housewifery, the improving of the education of midwives, and the establishment of babies' clubs and child-welfare exhibitions. Lord Aberdeen also addressed this section.

Guardians and Private Practice.

On many occasions the Local Government Board has incited boards of guardians to attempt to come to some arrangement with their medical officers as to the fees that should be charged in private practice. In nearly every case medical men have declined to discuss their private practices with the guardians. A vacancy recently occurred in the Swinford Union for a dispensary medical officer, and a committee of the guardians was appointed to draw up a scale of fees for the government of private practice. Each candidate was asked to sign an agreement to abide by this scale, and of the two candidates who came forward one consented and was elected. It is now for the Local Government Board to decide whether the guardians acted legally in demanding agreement to the scale.

Payment of Substitute for Dispensary Medical Officer after Accident.

In the case of Mr. H. Moorhead, medical officer of the Moate Dispensary District in the Athlone Union, who met with an accident while riding in a point-to-point race which incapacitated him for duty, the Local Government Board, in accordance with the dispensary rules, has sanctioned the deduction from Mr. Moorhead's salary of the sum paid by the guardians to his substitute. The Local Government Board states that "medical officers who for their own amusement engage in a highly dangerous form of sport, such as steeplechase riding, cannot, if injured, insist upon the guardians providing substitutes for them during their temporary incapacity at the cost of the ratepayers."

July 25th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The General Association of French Medical Men.

SOME notable changes have recently been made in the leading officials of the old-established mutual aid society known under the name of the General Association of French Medical Men. Although associations of this description are increasing in number at the present time, the one in question occupied what might almost be called an official position, for its principal officers and the members of the committee of management were selected exclusively from the higher ranks of the profession, being members of the Academy of Medicine, professors of the Faculty of Medicine, and hospital physicians and surgeons. Its reputation was of the best, but it was nevertheless the object of unfavourable criticism by general practitioners, who complained that although created for the benefit of their less fortunate brethren, it was entirely in the hands of the *élite* of the profession—men who in their high position could not realise the hardships and difficulties incidental to some branches of practice. Many unfortunate individuals who had applied to the society for assistance were met by refusals based on an unduly strict interpretation of the rules, and, moved partly by the new spirit of unionism which prevails throughout the whole industrial population of France, certain medical men have for a long time entertained the idea of attacking the system followed by the committee of the General Association. The committee had, in fact, been to some extent imprudent. Its *Builetin* is sent to every medical man in France, and

by making an attempt to transform this *Bulletin* into a scientific journal it fell into disfavour with the whole French medical press which would have been a loser by such a proceeding. Finally, in refusing to admit certain new members it seemed to cast aspersions on their professional character, raising against them the objection that they were already members of another medical benevolent society whose statutes allowed the reserve funds to be invested in commercial enterprises, especially in pharmaceutical businesses. The majority of the members of the General Association thought that in this matter the committee assumed the right of pronouncing judgment on disputed professional questions without having any authority to do so. At the last election of officers the new candidates supported by the dissentient party were successful, and those who had managed the affairs of the association for many years had to make room for newcomers, younger men for the most part actively engaged in practice. The position of President, which had for a long time been filled by M. Bucquoy, formerly President of the Academy of Medicine, has been bestowed on a provincial medical man, Dr. Lande of Bordeaux, president of the Union of the Medical Syndicates of France. Dr. Darras, the treasurer, is the only one of the former officers who retains his position. This little revolution has caused quite a sensation in French medical circles.

The Treatment of Fractures.

Several of the recent meetings of the Surgical Society have been devoted to an important discussion on the treatment of fractures, and most of the surgeons who take a special interest in this subject were among the speakers. It must be admitted that much diversity of opinion existed. The methods at present in favour among French surgeons are early mobilisation and massage as recommended by M. Lucas-Championnière, Lambret's *appareil à broches* modified by M. Quénu, Hennequin's constant traction apparatus, and suture of the bones. In the discussion M. Thierry, speaking chiefly with reference to fractures of the tibia attended with displacement, had much to say in favour of Lambret's apparatus, although he considered that the insertion of the pins was always a severe proceeding; he therefore preferred suture of the bones, using for this purpose copper wire rather than silver wire; in his opinion suturing prevented the formation of callus, which was undesirable and a deformity. The majority of the members of the society allowed it to be seen that they were not in favour of suturing or in a general way of operations involving loss of blood. M. Rochard recommended Hennequin's constant traction apparatus, which, although it required some dexterity for its application, did not involve any danger and gave very satisfactory results. M. Routier expressed a similar opinion, adding that Professor Delbet's various forms of ambulant apparatus promoted bony union and encouraged the normal action of the joints. M. Picqué spoke in favour of ambulant methods and against suturing of the bones, as he had known it to produce serious infections. M. Sébilleau also condemned suturing. M. Walther expressed his preference for the older methods—namely, the plaster-of-Paris splint or Hennequin's apparatus, according to circumstances; he was also very well satisfied with Delbet's ambulant apparatus; he reserved suturing for cases in which reduction could not possibly be accomplished by means of any apparatus, and in these he obtained immediate coaptation by catgut sutures, afterwards applying a plaster-of-Paris splint with subsequent careful observation. To recapitulate, the majority of the members of the society were opposed to suturing the bones, all of them except M. Thierry reserving it for exceptional cases.

July 24th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Professor von Noorden's Valedictory Lecture in the Old Medical Clinic.

IN the middle of July Professor von Noorden concluded the summer term by delivering to his students an address in which he bade farewell to the old wards in the Vienna Allgemeines Krankenhaus. In a couple of weeks the clinic, of which he is director, will be transferred to the fine new building which has been erected for this purpose a few hundred yards away from the old hospital, and in which the two gynæcological clinics are already accommodated. Professor von Noorden, in the course of his remarks, outlined the history of the old clinic, which he said had occupied its present place since 1846, but was no longer adequate for the requirements of modern medical practice. When in the period from 1846 to 1872 that renowned physician Professor Skoda was head of the clinic, it sufficed for the scientific needs of the time, and even his successor Professor Duchek raised no objection to delivering lectures to the students at the bedside. After Professor Nothnagel was appointed to the clinic in 1882 a lecture-hall and laboratories were erected; since then nothing of the nature of a modern equipment could be had for this clinic, but nevertheless that famous physician's wards and lecture-room were thronged with students. When in 1905 von Noorden was asked to take over the vacant professorship, he accepted it only on condition that a modern institute should be provided for him within a reasonable time. He had to wait over five years, however, and only now will he receive an up-to-date clinic with all the equipment required for the modern investigation and treatment of disease. Patients eligible for admission are no longer received in the old wards, but are sent directly to the new building, whilst the old patients are being dismissed or will be carried to their new beds. The space hitherto occupied by the clinic will be divided up amongst the other clinics still waiting their turn to move into a new and modern house. When all are in the new hospital, the old one will be converted into streets and gardens.

The Disciplinary Control of Medical Men.

The duties of the Medical Councils of this country include the infliction of several kinds of disciplinary correction on medical men infringing the regulations laid down in the Medical Act (*Aerzte Ordnung*). The severest punishment is the imposition of a fine not exceeding 400 kronen (£16) and the refusal of eligibility for an officer of the Council. These penalties are not severe enough, and, in fact, this kind of punishment has no deterrent effect upon delinquents. A certain proportion of the officers of the Councils therefore recommend that a Council should be empowered to remove the name of an offender from the Medical Register for a period not exceeding one year, thereby debarring him from practice for that length of time, and that this penalty should be inflicted by a court of honour (*Ehrengerichtshof*) for serious offences against medical ethics or against the rules of the Council. The proposal has been discussed by several of our medical unions, and has been nearly everywhere rejected, a court of honour not being credited with the necessary impartiality for imposing such a punishment, which would be likely to ruin its victim. Even the regular courts do not strike off the name of a practitioner from the list except in cases of serious crime, because a medical man restrained from practising his profession is generally unable to earn a living by any other means. For this reason it is held that such extensive powers over a medical man ought not to be handed over to a body of fellow-practitioners, and the general feeling of the profession is absolutely against the proposal in question. The prevalence of racial, religious, and national prejudices in Austria makes it inadvisable to entrust so much authority to a few hands.

Medical Men in Parliament.

The new Parliament, which was elected a few weeks ago, contains only a small proportion of doctors of medicine—nine out of 510, or less than 2 per cent., but the support of some 14 other Members may be counted upon in all matters relating closely to our profession. The new House will have several measures to deal with which will have an important influence upon things medical, the question of national insurance, being, as in England, a fruitful source of divergence of opinion between medical men, the Government, and the Krankencassa. The profession has several times shown its determination not to accept for beneficiaries under the Act any higher wage limit than £100 (2400 kronen) per annum. The medical men in Parliament will have to do their utmost to avert the threatening danger from their professional brethren, and to convince the legislature that the Act will be futile if the majority of medical practitioners are opposed to it.

July 24th.

NOTES FROM CHINA.

(FROM OUR OWN CORRESPONDENT.)

Mr. Dugald Christie, C.M.G.

MEDICAL men in China are pleased at the inclusion of Mr. Christie's name in the Coronation honours list. He is one of the senior medical missionaries of the Far East and has had a fine career at Mukden in Manchuria, where he has remained since his arrival in China close on 30 years ago. In 1884 his first hospital was burnt down accidentally, but was soon replaced by a larger and better building, which in turn was destroyed during the Boxer outbreak. In no way daunted Mr. Christie again rebuilt his hospital, and during the Russo-Japanese war this institution was filled by wounded soldiers of both sides, as well as Chinese, whom Mr. Christie collected from the battlefield. Though rendered unobtrusively, his services were recognised by the Czar and the Emperor of Japan, who both sent him decorations and letters of thanks. Throughout the recent plague epidemic this courageous medical missionary was the right hand of the Viceroy Hsi Liang and his staff, and was rewarded for the heavy work entailed by the implicit trust the Chinese authorities put in him and the way they followed out his advice. At present he is working hard to establish a medical school in the historic capital of Manchuria, and it is expected that the college will be completed next October. Not only the foreign community in North China, but the Chinese as well appreciate very much the official recognition he has received from the King.

Health of Shanghai.

During the past three years I have sent you an annual summary of the health report of Shanghai, as it gives a fair indication of sanitation in Treaty Ports in China, though, notwithstanding the large extent of its foreign settlement, the public health of Shanghai is better managed than in any of the other ports. This city is fortunate in the possession of an able and energetic medical officer of health, Dr. A. Stanley, who, with his staff of four inspectors and 20 assistant inspectors and the help of Dr. A. Moore and Dr. C. Noel Davis, keeps up a systematic examination of the whole settlement, and is able to carry out prophylactic measures in a way which is reflected satisfactorily in the low mortality rate compared with that of other large ports. In a population of 13 536 foreigners and 488,005 Chinese the death-rate from all causes was 20·2 per 1000 foreigners and 17·5 per 1000 Chinese. Last year there were six human cases of plague which were ascribed to the increase of rat infection in a sanitary subdistrict which borders on a pestiferous district under Chinese control, where no precautions are taken. The incidence of small-pox was considerable. 46 cases were notified among the resident foreign community, of which 13 were fatal. Among Chinese there were 304 deaths from small-pox, as compared with 143 and 863 the preceding two years. There were many cases of choleraic diarrhœa, but no case of true cholera was found where the diagnosis was confirmed by the laboratory. Typhoid fever remains an important sanitary factor in Shanghai; there were 23 cases of it, with 16 deaths. In nearly all the cases where the origin was investigated obvious breaches of the rules of health as laid down in the public health notice were observed. There were no deaths registered from Mediterranean fever, and the case mortality from diphtheria is steadily diminishing, probably owing to a more general use of antitoxin, which is now one of the staple products of the laboratory and is issued free to any indigent patient.

Scarlet fever, which is practically unknown in the tropics, now appears to have come to Shanghai to stay since its introduction by foreign immigrants in 1900. As would be expected with a recently introduced disease against which evolution has afforded no natural immunity, scarlet fever has been of a virulent type among the Chinese. It is probable that the passage of the disease through the susceptible Chinese has led to an intensification of the virus, so that it is more fatal to foreigners also. There were 32 cases among foreigners, and a case mortality of 21·8 per cent. The prevalence of tuberculosis remains at the same high level, and the heavy death-rate (669 deaths in all) from this disease is significant of local conditions of overcrowding, against which at present there is no legislation. Indiscriminate spitting and deficient air space are factors which prevail in every town and village throughout the empire and demand a heavy toll, heavier no doubt than the figures indicate, as dislike of disinfection measures results in many deaths being hidden or intentionally returned from other causes. Quite a number of cases of malarial fever, mostly of the benign tertian type, are contracted in and around Shanghai. Beri-beri has diminished, 16 cases as against 78 last year, and this improvement is held to be attributable to the measures of disinfection of body vermin among the prisoners in gaol. Dysentery, with liver abscess as a not infrequent sequel, continued prevalent. It would appear that, unlike the type of dysentery in Japan, which is bacillar in origin, of relatively greater frequency, and unattended by liver abscess, that which occurs in Shanghai is mostly amœbic in origin and prone to liver abscess.

Ten persons were bitten by dogs and underwent the Pasteur treatment. The virus of rabies in Shanghai is of an exceptionally intense character, the period of incubation being shorter than the rabies met with in dogs in Europe. Cattle plague severely affected the dairies during the year. Immunisation by Koch's gall method was offered to all the Chinese dairies but almost invariably refused. The public health laboratory appears to be a busy institution. 20,599 specimens were examined during the year for pathological diagnosis, including 19,559 rats, of which 249 were found plague infected. Over 17,000 glycerinated calf vaccine tubes were sent out during the year.

Peking, June 26th.

Obituary.

HERBERT TIMBRELL BULSTRODE, M.A., M.D. CANTAB., L.R.C.P. LOND., M.R.C.S. ENG., D.P.H.,

MEDICAL INSPECTOR TO THE LOCAL GOVERNMENT BOARD, AND LECTURER ON PREVENTIVE MEDICINE AT CHARING CROSS HOSPITAL MEDICAL SCHOOL.

WE deeply regret to record the sudden death of Dr. Herbert Timbrell Bulstrode, which occurred on Friday morning last, July 21st, at his house in Palace Gardens-terrace, Kensington. He was the son of the Rev. George Bulstrode, a well-known clergyman, rector of St. Mary Stoke, Ipswich, and Canon of Ely, and was born at Gatcombe, in the Isle of Wight, where his father was rector at the time. He was educated at Emmanuel College, Cambridge, and at the medical school of St. Thomas's Hospital. At Cambridge Bulstrode could only have revealed to his more intimate friends the capacities for great work that lay in him, for he contented himself with filling the ordinary curriculum of a medical student, taking the degree in Arts and later in Medicine with no difficulty, but with no marked distinction. He was, however, already known to his personal friends as being singularly interested, far more than men of his years generally are, in large questions. He read quite outside the ordinary professional line the works of great men, with the deliberate intention to find out the pith of their teaching, and thus acquired, even while a student, a judgment which is unusual in what with all well-educated young people is essentially the cocksure period of existence. At St. Thomas's Hospital he again made no special effort to distinguish himself in examinations. If he had applied himself to work for them more directly there is no doubt he would have come out near the top, but success in examinations did not appeal to him, and he passed through his medical course without carrying off any prizes, qualifying at the Colleges in 1886 and 1887, proceeding to his medical degree in the latter year, and obtaining the M.D. in 1890. But he was recognised among his fellow students as a man of more than ordinary ability. He was seen to be one who could not only talk but think, and while he formed strong opinions he was able to give expression to them clearly and to defend them forcibly and fearlessly. His readiness to put forward his views, to defend them, and to attack and cross examine on the views of others sometimes conveyed the false impression that he was self-opinionated. He really preserved a most open mind, and his main object in debate or conversation was to get at the truth and to stimulate his friends to think for themselves and to give reasons for the beliefs which they held and the opinions which they voiced.

Although he gained no class distinctions his merits did not pass unnoticed at St. Thomas's, for he was duly appointed house physician under the late Dr. J. F. Payne, with whom he remained a fast friend in after years.

In 1892 he was appointed to be one of the medical inspectors of the Local Government Board. The enormous increase of sanitary administration that was just developing gave a man like Bulstrode an unequalled opportunity. His industry was reinforced by the judgment which he had been so careful to educate, and from the first it became clear that the department would have in him a thoroughly capable administrator. For the first few years of office he carried on the routine duties of a medical inspector, in the course of which he was engaged in many interesting investigations, the results of which will be found in the Government reports and in many instances in our own columns. But later his name became more particularly associated with two branches of State medicine—namely, the prevention of tuberculosis and the protection of the populace from the evils of a vitiated fish-supply. In 1901 the British Congress on Tuberculosis brought together in this country some remarkable and variable masses of opinion with regard to the prevalence of tuberculosis, its relation to certain social factors, the reasons for its spread and also for its decrease. Sharp diversities of view in respect alike to its origin and spread helped to interest both medical men and public in what is at the present moment one of our greatest public health problems. Sir William Henry Power, at that time medical officer of the Local Government Board, had begun to publish in his reports, under the heading of auxiliary scientific investigations, inquiries which could hardly be attempted by any observer in the absence of facilities given by a Government department; and Bulstrode was told off to inquire on behalf of the Board into the various aspects of the tuberculosis question. The first fruit of his arduous and valuable work was the Milroy lectures delivered before the Royal College of Physicians of London in 1903 on the Causes, Prevalence, and Control of Pulmonary Tuberculosis. These lectures, which were printed in full in THE LANCET, showed how exhaustive Bulstrode's investigations had been during the intervening time, how painstaking his consultation of authorities, and how thorough his visits to various localities before feeling himself at liberty to make any definite pronouncement from the preventive point of view. For reasons which are clearly set out in the lectures he came to the conclusion that pulmonary tuberculosis is an infectious malady, possessing a communicability of a low order, and he set out his arguments in exactly the way to counteract the mischief which had been done by the public belief that consumption is catching like small-pox or whooping-cough. With regard to the virtues of notification of tuberculosis Bulstrode was not in the first instance very much convinced of the great good to be obtained in this manner; indeed, his original idea was that it would be well to limit notification to those cases of tuberculosis which, owing to their domestic conditions, were sources of danger to people about them, a suggestion which amounted to saying that the general sanitary surroundings of such persons should be notified to the medical officer of health rather than the disease. As his experiences of the value of notification grew Bulstrode modified this view, but he was the least bureaucratic of officials, and always maintained that notification of tuberculosis, unless conducted with great care, or if possible on some largely voluntary principle, might trespass upon the freedom of the subject. Education of children in the principles of health, compulsory insurance against sickness, the provision of sanatoriums, and lastly, the better housing and improvement of the conditions of employment of the working classes, were the factors upon which Bulstrode was prepared to rely in 1903 for an organised struggle by the State against the ravages of tuberculosis, and of the fortunate end of such a struggle he had no doubt.

Bulstrode was next commissioned to make special inquiry into the sanatorium treatment of tuberculosis, and during the following five years, in the intervals of his regular employment as an inspector, he visited most of the important sanatoriums for the treatment of tuberculosis at home and abroad, the result being the volume entitled "Sanatoria for Consumption," a standard work which was published by the Local Government Board. In this work will be found a mass of important facts derived from personal investigation of the various aspects of tuberculosis, from discussions with medical officers of health wherever special lines of attacking the various problems of prevention had been developed, and from detailed information obtained on the spot as to the prevalence of tuberculosis in foreign countries and the ways of dealing with it. Bulstrode satisfied himself, from the evidence which he had thus collected and collated, that sanatorium treatment in a sufficiently early stage gives a chance of curative results; while the isolation of potentially infectious persons from the community, and the education that such persons under a sanatorium *régime* receive in the method to be taken against the spread of infection must, he asserted, prove of pre-eminent value to the community. His study of the behaviour of tuberculosis in the German Empire, especially in relation to the improvement of the social position of the working class, is one of the most instructive portions of the volume, and has been found of particular significance just now by all men, medical or lay, who have grappled with the proposals of the National Insurance Bill.

The second important subject with which Bulstrode's name will be associated in preventive medicine is the spread of disease by shell-fish. He had written as early as 1895 on the possible spread of disease by the eating of shell-fish living in impure waters, a subject to which great attention had been called by Dr. Arthur Newsholme, the present medical officer of the Local Government Board, at that time medical officer of health of Brighton. Bulstrode was appointed by the Board to make an investigation of the serious outbreaks of typhoid fever in 1902 at Portsmouth, Southampton, and Winchester, in the latter two cases the outbreaks following public banquets. The outbreaks showed that in spite of the issue of several Local Government Board reports but little change had been made in those sewerage systems, to the effects of which the specific pollution of oyster-beds could clearly be traced, while the sanitary authority in the existing state of the law appeared to be helpless, there being no legal power vested in the authority by which the sale of oysters from contaminated sources could be prevented. Bulstrode made important reports on these outbreaks, and following upon them the hands of the local authorities were strengthened and throughout the country the risks from the sale of contaminated shell-fish were much abated. He continued to carry on and supervise such work at the Local Government Board, and as recently as last April made to the Board a comprehensive and highly instructive report on the relation of enteric fever and gastro-enteritis to the consumption of shell-fish. From this report it became easy to see that under existing conditions it is possible for large sums to be expended upon sewage purification works and yet for the effluent to contain enormous numbers of sewage bacteria, while the difficulty of periodic outflows of untreated, though highly diluted, sewage through the storm overflows remains. Bulstrode in this report took his readers upon an instructive journey around the English and Welsh littoral, and showed by means of maps and descriptions in the text the actual conditions which obtain in every place of importance, with respect to the position of the shell-fish and to the methods adopted for storing and cleansing them prior to consumption. The revelations made were decidedly disquieting, and there is no shadow of doubt left as to the necessity for legislative action.

Bulstrode's excellent scientific and administrative work was fully recognised by his colleagues and the medical world at large. He was the British delegate to the International Congress on Tuberculosis in 1905 at Paris; he on more than one occasion represented the Royal College of Surgeons of England at conferences of hygiene; he was a member of the Departmental Committee on Food Preservatives; and contributed articles on these subjects to the great medical systems and journals. He was also chairman of the Board of Studies of Hygiene of the University of London, lecturer on preventive medicine at Charing Cross Hospital, president of the Epidemiological Section of the Royal Society of Medicine, and examiner in hygiene for more than one well-known medical faculty.

We deeply regret that this valuable and busy life should have been terminated so suddenly and by an untimely death, for Dr. Bulstrode was only 52 years of age. He did work that will bear fruit for long periods to come, and both

in his public and private life will be sincerely missed by many who appreciated his industry, directness, and ability. He leaves behind him a widow, the daughter of the late Rev. R. A. L. Nunns, the vicar of Wherstead, Suffolk, to whom we offer our sincerest sympathies.

The first part of the funeral service was held on Tuesday at St. Martin's, Trafalgar-square, when in testimony alike to their private esteem and their appreciation of Dr. Bulstrode's public work, the foremost representatives of State medicine in the country attended the ceremony. Among those present were Mr. John Burns, President of the Local Government Board; Sir Horace Monro, permanent secretary to the Board; Dr. Arthur Newsholme, medical officer to the Board; Sir Arthur Downes, medical inspector to the Board for Poor-law purposes; Sir Arthur Whitelegge, Chief Inspector of Factories; Sir Shirley Murphy, medical officer to the London County Council; Sir George Newmam, medical officer to the Board of Education; Dr. Sydney Martin, representing the University of London; and a large number of Dr. Bulstrode's official colleagues and private friends. The service was completed at Wherstead, near Ipswich, the site of the grave being near the graves of Dr. Bulstrode's father and father-in-law.

JOHN BEDDOE, B.A. LOND., LL.D. EDIN. (HON.), M.D. EDIN., F.R.C.P. LOND., F.R.S.

Dr. John Beddoe, who died at his residence, The Chantry, Bradford-on-Avon, Wiltshire, on July 19th, was a very distinguished veteran in the medical profession.

Dr. Beddoe was born in 1826, at Bewdley, Worcestershire. He studied medicine at Edinburgh University, and also at University College, London, and Vienna. Joining a civil hospital staff, Dr. Beddoe had some experience of the Crimean War; then, after a long tour in Holland, Germany, Austria, Hungary, and Italy, he settled in practice as a physician in Clifton in 1857. He held several medical appointments in Bristol, being at one time physician to the Royal Infirmary, and consulting physician to the Children's Hospital and to the Bristol Dispensary. He continued in practice until 1891, when he retired, and took up his residence in Bradford-on-Avon. Upon his departure he was entertained at two dinners—a medical one and a public one at which the Right Hon. Lewis Fry was chairman. Able physician as he was, it is as an anthropologist that Dr. Beddoe made his mark in this country and abroad. He was President of the Anthropological Society in 1889–90, and the University of Edinburgh conferred upon him at about the same time the honorary degree of LL.D. In 1891 he was Rhind lecturer at Edinburgh and delivered six lectures on the Anthropological History of Europe In 1905 he was elected Huxley lecturer to the Anthropological Institute, of which he was a vice-president, his theme being "Colour and Race in Europe." He was President of the Bristol and Gloucestershire Archæological Society and of the Wilts Archæological and Natural History Society, and was also honorary professor of anthropology at the Bristol University. Whilst living at Bradford-on-Avon Dr. Beddoe served on the Wilts county council and took a great interest in Poor-law and urban district council work. He was at one time governor of the Bristol Endowed Schools, and was associated with the late Miss Mary Carpenter in many of her philanthropic works. In 1907 his portrait was purchased by subscription and presented to the Bristol Municipal Art Gallery.

Dr. Beddoe will always be recognised as a great authority on anthropological matters, and also in archæology was recognised by scientific leaders as a valuable *confrère*. He never neglected any opportunity of ethnological study, and he once published a paper on the Supposed Increasing Prevalence of Dark Hair in England, which brought him into correspondence with the late Charles Darwin, who thanked the author for the information contained in the article. His attainments received recognition abroad as well as at home. Among the foreign scientific bodies with which he was connected or by which he was honoured were the Anthropological Societies of Berlin, Rome, Sweden, Paris, Washington, and Brussels, the Imperial Society of Friends of Science, Moscow, and the American Antiquarian Society.

Dr. Beddoe will be much missed in Bradford-on-Avon and Bristol, where he was popular and highly esteemed.

PROFESSOR CARLO REYMOND.

THE Subalpine school has lost one of its most brilliant representatives in Dr. Carlo Reymond, second to none in Italy, and to few abroad, as a teacher and consultant in ophthalmic medicine. A native of Savoy when it was still part of Italy, he was born at Albertville in 1834, and received his education, literary and medical, at the University of Turin. In his twenty-sixth year he saw the country of his birth ceded to France, as the price of the Emperor Napoleon's alliance with Piedmont for the expulsion of the Austrian from Upper Italy, and, by this time a graduate and teacher in the Subalpine seat of learning, he seemed to throw himself with greater energy into work by way of asserting his "Italianita." His special department in the medical curriculum was ophthalmology, and of this he became not only professor, but also director of the clinique attached to the chair. For nearly 50 years he held the two posts with well-sustained distinction and efficiency, turning out relays of devoted pupils from session to session till there is hardly a professor of ophthalmic medicine in Italy who does not reflect his doctrine from the chair or practise it in the clinical wards. Beyond the Italian frontier he was honourably known and frequently consulted, insomuch that a foreigner who had benefited by his skill placed at the disposal of the University of Turin a munificent sum for the further endowment and development of the "Ospedale Oftalmico," associated with the name of Carlo Reymond. In the year now passing, to celebrate his half-century of work, a committee had been formed *ad hoc*, and its programme was far advanced towards completion when death intervened and, in the language of one of the promoters, "turned the ode of jubilee into the elegy of sorrow"—sorrow shared not only by the colleagues, the pupils, the friends whom the occasion was gathering together, but also by the numerous fellow workers throughout Italy in the field which he had cultivated so well. As a citizen, intelligently active in the public service, he was equally respected and beloved, an example long to be remembered by his compatriots of the loyalty and the philanthropy which went to the making of the "Third Italy."

MILLER GENERAL HOSPITAL.—On the afternoon of July 18th the Earl of Dartmouth, accompanied by the Countess of Dartmouth, laid the foundation-stone of the extension of the Miller General Hospital, Greenwich, which will cost £22,000. Mr. John H. Robinson, chairman of the board of management, said that the building would be five storeys high, and would consist of rooms for the performance of operations and administration of anæsthetics. At present it is arranged to open two wards, and in time to open a children's ward, which is much needed in that part of South London. The extension will provide for between 40 and 50 patients. A gift of £3000 was announced from the trustees of the Annie Zunz Fund on condition that the board of management would name a ward after them.

THE LONDON HOSPITAL MEDICAL COLLEGE.—The prize distribution at the London Hospital took place on July 13th, when His Excellency the Hon. Whitelaw Reid (American Ambassador) presented the prizes to the successful students. The Dean referred to the great loss sustained by the College in the retirement of the Warden (Mr. Munro Scott) after more than a quarter of a century's service. The College staff had been increased by the appointment of Dr. James Mackenzie as lecturer on cardiac research, and Dr. A. H. Fison as lecturer on physics. Mr. Whitelaw Reid said that he had been told that the London Hospital was the largest institution in the country and probably in Europe. An enthusiastic friend, however, had even gone far enough to say it was therefore the largest in the world; but on that point he thought Americans could not so easily surrender their usual claim, considering that Bellevue Hospital alone in New York had over 1000 beds. He frankly admitted, however, that the "London" employed in the care of its patients nearly double as many trained nurses as the biggest hospital in New York. A hearty vote of thanks was proposed by the Hon. Sydney Holland (chairman of the hospital), and Sir Bertrand Dawson (chairman of the Medical Council) seconded the resolution. The distribution was followed by a garden party in the hospital grounds.

THE BRITISH MEDICAL ASSOCIATION.

SEVENTY-NINTH ANNUAL MEETING IN BIRMINGHAM.

THIS year's Annual Meeting of the British Medical Association, which is still in progress as we go to press, is the fifth that has been held in the capital of the Midlands. Previous meetings at Birmingham took place in 1834, in 1856, in 1872, and in 1890. The arrangements for the present gathering have been admirably organised, and the whole affair has already proved itself to be a great success. Birmingham is particularly well suited for a meeting of this sort, because the main buildings of the city, which lend themselves appropriately to the scientific and social functions of the Association, are concentrated for the most part within a small area.

Although surrounded by densely populated manufacturing areas Birmingham is a clean city, thanks to its elevated situation. Even within the precincts of the city there is abundant evidence of its great association with the manufacture of iron and steel, but the offensive emanations of the great foundries, alkali and acid works in the adjoining "Black Country," do not appear to reach Birmingham.

One of the first impressions forced upon the visitor who is addicted to the frequent use of soap and water is the luxury of a soft water-supply. Birmingham long ago realised the necessity of going far outside its own resources of rivers with an uncertain flow, and of wells with a doubtful endurance, and closed promptly with the proposal to secure an unlimited supply of soft water from the Welsh hills. The scheme was realised in 1908, and there is now available from the watershed of the Elan and Claerwen a supply of water amounting to 72,000,000 gallons daily. Luckily it is not a moorland acid water, but is faintly alkaline and without action upon lead.

With equally commendable perspicacity the sanitary authorities grasped early the meaning of the developments of biological experiments in regard to the disposal of sewage. The whole of the sewage of Birmingham, representing a population of over 500,000, is now treated by means of bacteria beds, and one of the most interesting demonstrations offered to the visitors was the complete resolution of a nuisance and source of evil into simple innocuous materials by a biological process the success of which is due to careful engineering in able hands.

The Exhibition of Surgical Instruments, Drugs, and Foods was held in the Bingley Hall, a place of meeting which has associations with great political movements and prize agricultural stock. The Bingley Hall, in fact, is the Agricultural Hall of Birmingham. It covers a large area, but only about one-third of its space was allocated to the "annual museum." There was an obvious falling off in the number of exhibitors on this occasion, the list being a comparatively small one. It was not easy, moreover, to find a stall presenting exhibits of a really novel kind, or an array of materials which were not already familiar to the regular attendant at this annual event, though novelties were to be seen, as we indicate elsewhere. There was little to be seen that was of real scientific interest, apart, that is to say, from an obvious commercial motive. It was most gratifying, however, to note how lively is the interest taken nowadays by manufacturers of fine products in the scientific side of their work. The standardisation of drugs, both physiological and chemical, furnishes an illustration of this excellent attitude. The exhibitors were well supported by the organising authorities, who did their best to make the attendance a satisfactory one. The exhibition was opened on Tuesday, July 25th, by the President-elect, who was accompanied by the President and the Lord Mayor of Birmingham. We commence this week in another column a review of the more important exhibits shown, following the same classification of them which we have adopted on previous occasions.

The representative meeting began on Friday of last week, July 21st, in the large theatre of the Midland Institute, next door to the town-hall, which had been converted into a general reception room for all those attending the annual meeting. Immediately behind the institute and the town-hall is the large University building in Edmund-street, and this has been devoted to the work of the 16 scientific sections.

The sittings of the representatives ended on Tuesday morning, July 25th, and were followed that afternoon by the annual general meeting, which always marks the commencement of what may be called the annual meeting proper. The religious services were followed by successful garden parties by Lady Lodge and by Mrs. Saundby, wife of the President-elect of the Associaton; and on the same evening, in the Grand Hall of the University of Birmingham, at Bournbrook (some four miles from the heart of the city), Sir Henry Butlin, the retiring President, vacated the chair for Professor Saundby, whose Presidential address is printed in another part of this issue of THE LANCET. The first day's programme ended with a pleasant smoking concert in the Drill Hall, organised by the Birmingham and District General Medical Practitioners' Union, and presided over by Dr. H. W. Langley Browne.

At the annual general meeting on Tuesday afternoon Sir Henry Butlin resigned his office as President, and in a few felicitous words introduced his successor and placed the presidential badge of office around Professor Saundby's neck. Both the retiring President and the President-elect were received with great enthusiasm and were welcomed by graceful speeches from Professor J. T. J. Morrison and Dr. Bruce Gough. The vote of thanks to Sir Henry Butlin for his distinguished services to the Association and to the medical profession was carried with loud and prolonged acclamation, every member present rising from his seat and cheering warmly. The tributes paid to the retiring President were applauded in a very striking manner, which showed the esteem and affection in which he is held by all members of the Association.

On Tuesday afternoon a service was held for the members of the Association at the Pro-Cathedral when the Bishop of Birmingham, Dr. Gore, preached the sermon. There was a good attendance and, as on previous occasions, the collection was divided between the British Medical Benevolent Fund and Epsom College. Dr. Gore made an excellent appeal on behalf of these institutions. A service was also held at the Church of the Oratory of St. Philip Neri, Edgbaston, the sermon being preached by Monsignor Henry Parkinson, Rector of Oscott College.

Before Professor Saundby delivered his Presidential Address on Tuesday evening, at the University at Bournbrook, the foreign guests of the Association were formally introduced to him, and he offered a welcome to the delegates from the Over-sea Dominions. A certificate of honorary membership was then presented to the Right Honourable Joseph Chamberlain in recognition of his great services to tropical medicine,

and this was received and acknowledged on his father's behalf by Mr. Neville Chamberlain. After this the Middlemore prize of the Association was presented to Dr. C. W. Gordon Bryan, for his essay on "Serum and Vaccine Therapy in connexion with Diseases of the Eye." The Presidential Address was attended by a large gathering of members and ladies, and academical dress (as at the religious services and the Lord Mayor's reception) was worn by a considerable number of those present. The new President was supported by the Lord Mayor and the Vice-Chancellor of the University. Over 720 members had registered their names by Tuesday afternoon as attending the annual meeting, and a large proportion were accompanied on their visit by ladies.

A concise and instructive pathological museum has been organised under the superintendence of Professor R. F. C. Leith, in the Pathological and Brewing Laboratories of the University College in Edmund-street, in close proximity to the meeting-rooms of the various scientific sections. Praise is due to Mr. A. W. Nuthall, the honorary secretary of the museum, and to the various honorary secretaries and curators of the ten constituent sections of the museum. The exhibition is excellent. Special subjects are selected for illustration in the divisions of medicine, surgery, gynæcology, ophthalmology, and radiology; and there are many beautiful casts and wax models illustrating diseases of the skin. More than 80 microscopes have been lent by the University to the Museum Committee for this occasion.

The more strictly scientific work of the meeting began on Wednesday, July 26th, when the various sections sat from 10 to 1 o'clock in the classrooms of the University building. The Address in Medicine was delivered at 12.30 on Wednesday in the Midland Institute, and the Address in Surgery on Thursday at the same place and time. Both are printed in this issue of THE LANCET. The handy situation of the institute enabled many of those members who had been engaged in the morning's work of the sections to listen to these two instructive addresses. The most important social and academical events on Wednesday and Thursday were the Lord Mayor's reception, the Degree Congregation, the annual dinner, and a garden party given by Mrs. Gilbert Barling.

It was announced during the course of the meeting that the next annual meeting of the Association would be held in 1912 in Liverpool, and that the President on that occasion would be Sir James Barr, consulting physician to the Liverpool Royal Infirmary.

THE BRITISH MEDICAL ASSOCIATION AND THE NATIONAL INSURANCE BILL.

The Representative Meeting of the British Medical Association, which began its sittings in committee on Friday, July 21st, came on Tuesday last to a definite declaration of policy with regard to the National Insurance Bill, and as a result resolutions were passed as instructions to the Council of the Association, by which body they will be transmitted to the Chancellor of the Exchequer. The demands which reached their definite shape under six headings at the meeting of representatives held in London at the end of May are all maintained. The six headings of these demands are:—

1. An income limit of £2 a week for those entitled to medical benefit. 2. Free choice of doctor by the patient subject only to the consent of the doctor to attend him. 3. Medical and maternity benefits to be administered by Local Health Committees and not by Friendly Societies. 4. The method of remuneration of medical practitioners adopted by each Local Health Committee to be according to the preference of the majority of the medical profession of the district of that committee. 5. Medical remuneration to be what the profession considers adequate, having due regard to the duties to be performed and other conditions of service. 6. Adequate medical representation among the Insurance Commissioners, in the Central Advisory Committee, and in the Local Health Committees; and statutory recognition of a local Medical Committee representative of the profession in the district of each Health Committee.[1]

[1] THE LANCET, June 10th, 1911, p. 1616; July 15th, 1911, p. 194.

The proceedings of the committee were *in camerâ*, and only the resolutions finally arrived at by it were placed before the representative body, which confirmed them all. The demand, however, for a maximum income limit of £2 per week in respect of medical benefits to apply throughout the country was confirmed, with the proviso that in any district in which the local profession considers that the circumstances justify fixing a lower limit than this it should have the support of the Association in so doing. The meeting approved the new suggestion—based to some extent upon a hint given by Mr. Ramsay Macdonald in his speech on the second reading debate—that persons might receive their medical benefit in the form of a contribution to the cost of their medical attendance under private arrangements made by them with medical men of their own selection, instead of in the form of medical attendance arranged by the Local Insurance Authority. Persons whose income is above the statutory or locally agreed limit would take their benefit in the form of a contribution to the cost of their attendance. Persons below the limit would have the option, subject to the approval of the Local Authority, which should consult with the Local Medical Committee, to be appointed in accordance with an amendment placed by the Chancellor of the Exchequer on an Order Paper of the House of Commons on July 25th. The Council was instructed to take every means in its power to carry out the policy of the Association above described, and to ensure a continuance of the efforts already made, with a view to obtaining a statutory fixation of the £2 per week income limit in respect of medical benefits.

THE ANNUAL EXHIBITION.

AN inaugural ceremony has not hitherto been the rule in connexion with the annual exhibition of surgical appliances, drugs, special foods, and so forth, but this year the authorities decided to give the exhibition a fair start with a formal opening by the Lord Mayor of Birmingham, who was supported by the ex-President and President of the Association. The Lord Mayor was given a very hearty vote of thanks by the audience, which comprised a good many of the interested exhibitors. This departure was successful; it introduced at once a large attendance of medical men to the scene, which soon became a busy one. The display of surgical instruments and hospital appliances attracted perhaps the most interest, and on the whole this section of the exhibition enjoyed a larger representation than any other. In magnitude the exhibition could not, of course, compare with the exhibition in London last year, which was officially stated to be the largest collection of exhibits ever brought together under the auspices of the Association. Though, however, the exhibits were not so numerous as before, there was decided evidence of their interesting character, and the exhibitors found plenty to do in pointing out to the visitors the special features of the foodstuffs, drugs, or surgical and hospital appliances which were presented to view. It is true there were many familiar objects shown, but there were also quite a large number of exhibits which attracted interest because they were new.

As on previous occasions, we present again a rapid review of the more important exhibits in the following order: (1) Surgical Instruments and Appliances; (2) Drugs; (3) Foods and Food Products; (4) Sanitary Appliances; (5) Mineral Waters, Beverages; (6) Publications; and (7) Exhibits of a Miscellaneous Character.

I.—SURGICAL INSTRUMENTS AND APPLIANCES.

It is difficult to do justice to this section owing to the large number of instruments and appliances which were shown. All the well-known makers were represented and the stalls of each displayed a profusion of new appliances of the greatest interest to those engaged in advanced medical and surgical practice. There were up-to-date appliances for treatment by radiant heat, light, and electricity, illustrations of the application of radium in disease, and besides there was shown a great number of improvements in the various instruments employed in surgical operations. Invalid beds and hospital furniture were also a feature of this section of the exhibition. It was noticeable that a good many firms who hitherto have confined their attention to the preparation of pure drugs or organo-therapeutic remedies have added to their specialities certain medical and surgical appliances. Messrs. Siemens Bros. and Co., Limited,

of Caxton House, Westminster, were well to the fore with their electric apparatus, and their "oscillothermex," a combined apparatus for diathermic, high frequency, and X ray treatment with oscillating discharges, was inspected with considerable interest. The exhibit included also an admirably designed universal electro-medical apparatus for the application of galvanisation, faradisation, cataphoresis, cautery, and so on. Amongst the exhibits also were some instruments made of tantalum, which in dental use prevents the discolouration of the fillings. The same metal is used in evaporating dishes, forceps, and injection needles. Lastly should be mentioned their demonstration of radium salts, applicators, and other radio-active appurtenances. Close by, the well-known surgical instrument makers, Messrs. Down Bros., of 21 and 23, St. Thomas's-street, London, S.E., showed a very interesting collection of modern surgical instruments conforming to the design of experienced surgeons, while the exhibit included examples of aseptic hospital furniture, operation tables, and so on, which were generally admired. Local skill was represented in the surgical dressings' exhibit of Messrs. Southall Brothers and Barclay of Lower Priory, Dalton-street, and Dale End, Birmingham, who gave illustrations of the different stages of manufacture, from raw material to finished cloth, of gauzes and lints and antiseptic and aseptic dressings. The exhibit of Radium, Limited, of 4, Albert-square, Manchester, served to turn attention to this new development of treatment. This firm provides an apparatus for rendering water radio-active and they also prepare artificial radio-active earths of guaranteed efficiency for local applications. There was shown also a recently designed apparatus for the inhalation of radium emanations combined with oxygen and fountain distributers for the distribution of radium emanations in the air for simple inhalation treatment. Messrs. Chas. Hearson and Co., Limited, of 235, Regent-street, London, W., exhibited their new anhydric electric incubators, and an electric high-speed centrifuge was shown working at a speed of 9000 revolutions per minute. A well-known local firm, Messrs. Philip Harris and Co., Limited, of Edmund-street, Birmingham, gave special prominence to the hospital aseptic furniture of their manufacture. It included a portable operating-table made under the suggestion of Mr. Bernard J. Ward, which can be made adjustable with great ease for the Trendelenburg, lithotomy, and horizontal positions. There was demonstrated at this stall also a special snow apparatus producing solid carbon dioxide in cones for producing anæsthesia for minor operations. Besides special foods and an interesting series of pharmaceutical products, Messrs. James Woolley, Sons, and Co., Limited, of Manchester, exhibited their all-glass aseptic sprays and syringes, and an adjustable truss which offers decided advantages. An interesting exhibit was that of Messrs Spencer, Heath, and George, Limited, of 48 and 52, Goswell-road, London, E C., which comprised some well-thought-out medical and anthropometric apparatus. Amongst the objects shown were plinths, massage tables, booms, rib-stools, and an ingenious "stationary cycle exerciser" for orthopædic gymnastics, providing a frame for lady's or gentleman's use. Messrs. J. Nesbit-Evans and Co., of Floodgate-street, Birmingham, deserve a word of praise for their hospital bedsteads and accessories, including an anti-accident children's cot, an anti-sagging lunatic patient bedstead, a spring wire side epileptic bedstead, a bedside table, and aseptic bed-screen. The Skeffington patent recumbent invalid lifters (address of manufacturers, 49, Ulundi-road, Blackheath, S.E.) received considerable attention, and naturally enough, having regard to the extreme comfort which they offer to the patient in bed and to the convenience which they afford to the medical attendant. The "Skeffington" prevents a weak patient from slipping towards the foot of the bed, maintaining the patient in the sitting posture without any exertion on his part; a patient may be lifted in the sheet bodily so that the bed can be re-made underneath while the patient is still recumbent, and the bedpan can be applied in an easy and undisturbed way. With similar admirable objects in view the apparatus have been made known respectively as the "Anastasia," the "Catharios" (for lifting the patient's sacrum only), and the "Skeffington cushion," a pneumatic cushion which when deflated can be easily withdrawn from the patient's back, and when inflated by a pump gently lifts the sacrum only.

The surgeon found much to interest him in the large assortment of up-to-date surgical instruments presented by the Holborn Surgical Instrument Company, Limited, of Holborn-circus, London, E.C. The Holborn £25 set of instruments adapted for the surgeon commencing to practise makes a very suitable article for presentation. Specimens of hot-air chambers and suction glasses for Bier's treatment were shown by this firm. Mr. G. H. Zeal, of 82, Turnmill-street, London, E.C., exhibited many variants of his "Repello" thermometer, an ingenious and accurate instrument which does not require shaking to reset. There were many appliances worth studying at the stall of Messrs. Reiner and Keeler, Limited, of 9, Vere-street, Cavendish-square, London, W. There were, for example, the Edridge-Green colour perception lantern and the same author's classification test and pocket test, and besides an amblyoscope and exophthalmometer.

Messrs. Pocock Brothers, of 235, Southwark Bridge-road, London, S.E., exhibited sections illustrating the material used in padded rooms, besides an indiarubber bed and hospital sheeting with enduring qualities. The stand of Messrs. Mayer and Meltzer (71, Great Portland-street, London, W.) received close attention from surgeons, the instruments shown bearing in so many cases, and quite rightly, the description of "latest." The firm drew attention in particular to an improved aseptic guillotine designed by Mr. Hugh Jones, but we saw many instruments displayed that have been described fully in our columns by their makers. The "Wassmuth's Sanum" Company, of 5, Sloane-street, London, S.W., exhibited a new antiseptic which is described as superior to all other antiseptics on account of its "greater efficacy and harmlessness." Chemically, it is "liquor natrii chloro-borosi." What was correctly described as "an exhibit of the newest ideas in surgical instruments and medical appliances" formed the attraction of Messrs. John Weiss and Son's stall (287, Oxford-street, London, W.). Here was shown "606" apparatus both for intravenous and intramuscular injection. The exhibit included some modern forms of spinal analgesia syringes, saline infusion apparatus, carbon-dioxide snow apparatus, and an ophthalmological section comprising the Edridge-Green lamp for colour test, examination lamps for retinoscopy, and other instruments of value in advanced ophthalmological practice. Messrs. Fassett and Johnson, of 86, Clerkenwell-road, London, E.C., exhibited the well-known and approved standard gauzes, aseptic ligatures, medicinal and surgical plasters of Messrs Seabury and Johnson. Among the exhibits of Messrs. Walton and Curtis, of 190, Broadhurst-gardens, West Hampstead, London, N.W., was the "Curtis" abdominal support, designed by Mr. Arbuthnot Lane, which is found to give direct antero-posterior support without pressure on the hips and to retain its position without the use of perineal straps regardless of posture. The exhibit included a hydrostatic cupper and aspirator invented by Dr. H. Macnaughton-Jones. Surgical dressings were well represented at the stall of the Liverpool Lint Company of Mark Street Mills, Netherfield-road North, Liverpool, two features of the exhibit being their "Vulnoplast" material, which affords a complete dressing with self-adhesive edges, composed of several layers of gauze treated with approved antiseptics. The dressing does away with bandaging or pinning. "Impermiettes" should be mentioned also among the exhibits of this firm. They present advantages over ordinary rubber-coated sheetings owing to their durability. They can be sterilised and cleansed without injuring the fabric. The personal demonstration by Mr. C. A. Hoefftcke (of 21, Woodstock-street, Oxford-street, London, W.) of his extension appliances drew the attention of a good many visitors, and excellent evidence of the value of these appliances in the treatment of tuberculous joints was furnished in a series of skiagrams. The exhibit included an appliance for obtaining extension of the spine in the treatment of scoliosis and caries or injuries to the spine, appliances for fractures, a corset for lateral curvature, and artificial legs made on the same principle as Hoefftcke's appliances for joint disease. The exhibit of Messrs. Reynolds and Branson of Leeds contained many new departures in medical and surgical apparatus. There were apparatus for the injection of salvarsan, for the local application of solid carbon dioxide, for the administration of oxygen alone or with alcohol, for saline infusion, and so forth. There was a profusion also of instruments for minor surgical operations, all well made

and in many cases owing their inspiration to well-known surgeons. Messrs. T. Holland and Son, of 46, South Audley-street, London, W., showed specimens of their well-known instep supports for flat-foot and metatarsalgia, as well as their natural shape boots. The study which this firm has given to the question of a comfortable boot deserves recognition. There were some useful surgical appliances to be seen at the stall of Messrs. Anderson and Dodds, of 11, Broad-street Corner, Birmingham, including a watch-spring pessary introduced by Dr. N. Spriggs, and a device which obviates the inconvenience attaching to the wearing of elastic thigh stockings, by keeping the stocking in its place and preventing it from slipping down the thigh. Much ingenuity marked the appliances shown by Mr. Harry Brook, of 25, Brackenbed-lane, Halifax, which are designed to palliate disfigurements of the face. There were shown here artificial noses, ears, chins, fingers, all designed with the object of concealing loss of feature through disease or accident, and as far as illusion is possible in such cases, these inventions would create it.

Messrs. Claudius Ash, Sons, and Co., Limited, of 5 to 12, Broad-street, Golden-square, London, W., made anæsthetics and anæsthetic apparatus the special feature of their exhibit, which included nitrous oxide gas outfits, and outfits with nitrous oxide gas and oxygen and the appurtenances incidental to the administration of general and local anæsthetics. Messrs. Hawksley and Son of 357, Oxford-street, W., showed a collection of blood-pressure apparatus designed by well-recognised authorities. The exhibit included, amongst other novel appliances, the new portable mercurial hæmometer of Dr. George Oliver, which, apart from being compact, possesses a vacuum chamber which renders temperature effects upon the readings nugatory, and a clinical recording apparatus.

There can be little doubt that this section of the Annual Exhibition grows increasingly interesting each succeeding year, and the present occasion shows that surgical and hospital appliances claim a very big share of the exhibits introduced to the notice of the visitors.

(To be continued.)

Medical News.

UNIVERSITY OF LONDON.—At examinations held in July the following candidates were successful:—

M.D. EXAMINATION.

Medicine.—Phirozshaw Cooverji Bharucha, B.S., University College Hospital; John Webster Bride, B.S., Victoria University of Manchester; Manchersha Dhanjibhai Dorabji Gilder, B.S., University College Hospital; Alexander Edward Gow, B.S., St. Bartholomew's Hospital; Frederick William Higgs, B.S., St. George's Hospital; Ernest Williams Jones, University of Birmingham; David Judah, B.S., and Clement Lovell, B.S., University College Hospital; and Geoffrey Viner, B.S., and Arthur Lowndes Yates, B.S., St. Bartholomew's Hospital.

Midwifery and Diseases of Women.—Elsie Mary Chubb, B.S., London (Royal Free Hospital) School of Medicine for Women; Joseph Bernard Dawson, B.S., University of Birmingham and St. Bartholomew's Hospital; William Poole Henley Munden, B.S., Guy's Hospital; John Hobart Nixon, B.S., St. Mary's Hospital; Alfred Howard Parkinson, B.S., B.Sc., University of Leeds; and Robert Evans Thomas, B.S., University of Bristol.

State Medicine.—Alfred Ball, B.S., and Walter Francis Corfield, B.S., University College Hospital; Matilda Hunt, B.S., London (Royal Free Hospital) School of Medicine for Women and Royal Institute of Public Health; James Jenkins Paterson, B.S., B.Sc., University of Liverpool; Alfred Charles Foster Turner, B.S., St. Thomas's Hospital; Thomas Williams Wade, B.S., University College, Cardiff, and Charing Cross Hospital; and Cuthbert Ferguson Walker, B.S., St. Mary's Hospital and Victoria University of Manchester.

Tropical Medicine.—Daniel Elie Anderson, B.A., B.Sc., London School of Tropical Medicine; Francis Victor Owen Beit, St. Bartholomew's Hospital and London School of Tropical Medicine; Friedrich Grône, St. Bartholomew's Hospital; John Hanna Murray, University College Hospital and London School of Tropical Medicine; and Charles Cecil Connock Shaw, B.S., St. Mary's Hospital, London School of Tropical Medicine, and Post-Graduate College West London Hospital.

M.S. EXAMINATION.

Surgery.—Cecil Augustus Joll, B.Sc., University of Bristol and University College Hospital; and Edward Leslie Martyn Lobb, Guy's Hospital.

N.B.—This list, published for the convenience of candidates, is issued subject to its approval by the Senate.

SOCIETY OF APOTHECARIES OF LONDON.—At examinations held recently the following candidates passed in the subjects indicated:—

Surgery.—C. B. Hawthorne (Sections I. and II.), Cambridge and Birmingham; J. S. H. Lewis (Section I.), University College Hospital; F. G. Norbury (Section I.), Glasgow; E. H. Roberts (Sections I. and II.), University College Hospital; and W. H. Watson (Sections I. and II.) and R. M. Wingent (Section I.), Guy's Hospital.

Medicine.—N. S. Adler (Section II.), Berlin; A. de Luyck (Section II.), Brussels; A. E. L. Devonald (Sections I. and II.), St. George's Hospital; P. McGinnis (Section I.), Dublin; and E. H. Roberts (Sections I. and II.), University College Hospital.

Forensic Medicine.—E. H. Roberts, University College Hospital.

Midwifery.—A. E. L. Devonald, St. George's Hospital; J. S. H. Lewis, University College Hospital; C. C. Messiter, St. Bartholomew's Hospital; P. J. Montgomery, Middlesex Hospital; C. E. Reckitt, Guy's Hospital; and E. H. Roberts, University College Hospital.

The Diploma of the Society was granted to the following candidates, entitling them to practise medicine, surgery, and midwifery:—N. S. Adler, C. B. Hawthorne, A. de Luyck, and E. H. Roberts.

LONDON SCHOOL OF TROPICAL MEDICINE.—The following students at the school were successful at the examination closing the thirty-sixth session (May–July, 1911):—

*Captain D. Heron, I.M.S., M.B., Ch.B. Edin.; F. Grone, M.B., D.P.H.; E. C. Braithwaite, M.B., B.S. (Colonial Service); L. W. Davies, M.D. (Colonial Service); J. T. Wigham, M.D., D.P.H.; R. E. Drake-Brockman, M.R.C.S., L.R.C.P. (Colonial Service); Major A. Moorhead, I.M.S., M.B., C.M.; N. S. Messiha, Cairo School of Medicine; D. Duff, M.B., B.Ch. (Colonial Service); G. O. Teichmann, M.B., B.S., M.R.C.S., L.R.C.P.; C. A. Crichlow, M.B., Ch.B.; A. T. Ozzard, M.R.C.S., L.S.A. (Colonial Service); W. I. M. Clark, M.B., Ch.B. (Colonial Service); M. W. Fraser, M.B., Ch.B. (Colonial Service); H. R. M. Ferguson, M.B., B.Ch. (Colonial Service); J. Y. Wood, M.B., Ch.B. (Colonial Service); H. S. Gettings, L.R.C.S., L.R.C.P., D.P.H.; S. P. Proctor, M.B., Ch.B.; R. O. Sibley, M.B., L.R.C.S., L.R.C.P.; G. C. Winchester, M.B., C.M.; R. Bury, L.R.C.P., F.R.C.S. (Colonial Service); B. J. Courtney, M.D. (Colonial Service); W. H. Bomford, L.R.C.P. & S.I. (Colonial Service); and J. Bruce Bays, M.D., M.B., M.R.C.S.

* With distinction.

The following students also obtained the M.D. Lond. in Tropical Medicine (Branch VI.):—

D. E. Anderson, M.D. Paris, M.B. Lond.; F. V. O. Belt, Captain I.M.S., M.B. Lond.; F. Grone, M.B. Lond., D.P.H.; J. H. Murray, Captain I.M.S., M.B. Lond., M.R.C.S., L.R.C.P.; and C. C. C. Shaw, Captain I.M.S., M.B., B.S. Lond.

UNIVERSITY OF DURHAM.—At examinations held recently the following candidates were successful:—

DEGREE OF BACHELOR OF MEDICINE.—THIRD EXAMINATION.

Arthur Butterfield, Garfield Carse, Cyril Duncan, Walter Armstrong Elliott, Sarah Louisa Green, Nora Murphy, William Somerville Murray, Charles O'Hagan, and Carina Augusta Barry O'Neill, College of Medicine, Newcastle-upon-Tyne; Lionel Glover Pearson, University of Leeds; and Evelyn Ritson (First-class Honours), Charles Henry Robson, Cedric Overton Shackleton, Arthur Sutcliffe, and Gordon Stewart Woodman, College of Medicine, Newcastle-upon-Tyne.

SECOND EXAMINATION.

Cyril Armstrong, William John Bowden, and Geoffrey Bede Egerton, College of Medicine, Newcastle-upon-Tyne; Henry Hawes Elliot, College of Medicine, Newcastle-upon-Tyne, and Guy's Hospital; Charles Norman Gover, Philip Gunn, Frank Wilson Harlow, and Cyril Jacobs, College of Medicine, Newcastle-upon-Tyne; David Rees Jones, College of Medicine, Newcastle-upon-Tyne, and Guy's Hospital; Robert Rutherford Lishman, Francis Metcalfe, Ernest Charles Gilchrist Parker, and Jane Penman (Second-Class Honours), College of Medicine, Newcastle-upon-Tyne; Hugh Ley Puxon Peregrine, College of Medicine, Newcastle-upon-Tyne, and Guy's Hospital; Home Alexander Playfair Robertson, College of Medicine, Newcastle-upon-Tyne; Eric Knowles Ryan, College of Medicine, Newcastle-upon-Tyne, and University of Sheffield; Philip Savage, Guy's Hospital; Kirton Ivor Seager Smith, College of Medicine, Newcastle-upon-Tyne; Charles Rees Smith, Guy's Hospital; and James Calvert Spence, College of Medicine, Newcastle-upon-Tyne.

FIRST EXAMINATION.

Elementary Anatomy and Biology, Chemistry, and Physics.—Henry Evers (First-Class Honours), College of Medicine, Newcastle-upon-Tyne.

Chemistry and Physics.—John Alexander Charles, Ethne Haigh, George Irving, Hubert Ransome Markham, John Eric Measham, William McDonald Pettigrew, Bertram Sergeant, Alfred Smirthwaite, and Reginald Leslie Wright, College of Medicine, Newcastle-upon-Tyne.

Elementary Anatomy and Biology.—George Gordon Baty, College of Medicine, Newcastle-upon-Tyne; John Francis Carter Braine and Cyril Charles Herbert Cuff, Guy's Hospital; Lionel Basil Frere, College of Medicine, Newcastle-upon-Tyne; Leonard Wilfred Hearn, Sheffield University; Cecil Neild Joseph and Frederick Lisle Newstead, College of Medicine, Newcastle-upon-Tyne; and Douglas Oliver Richards, Guy's Hospital.

Elementary Anatomy.—Harold Kingston Graham Hodgson, St. Thomas's Hospital.

DIPLOMA IN DENTAL SURGERY (L.D.S.).—FIRST EXAMINATION.

Chemistry and Physics.—John Thomas Smith (First-Class Honours) College of Medicine, Newcastle-upon-Tyne; and George Galloway Robertson (Second-Class Honours), College of Medicine, Newcastle-upon-Tyne.

At the Convocation held on July 22nd the following degrees and diploma were conferred:—

Doctor of Medicine.—Edwin Gilbert Emerson Arnold, Richard Henry Bellwood, Henry Glendinning Davison, Horsley Drummond, Patrick Albert Galpin, Charles Westland Greene, Robert William Nevin, and John Ralph Prior.

Doctor of Medicine for Practitioners of 15 Years' Standing.—James Moore Bennett, Richard Dagger, Patrick Joseph Flanagan, Edward Palmer Stewart Gane, William James Hoyten, Henry Percival Johnson, Arthur Edwin Joscelyne, Frederick Charles Langford, William Henry Payne, and Frederick George Meynell Philps.

Doctor of Hygiene (D.Hy.).—Robert Samuel Trotter.

Master of Surgery (M.S.).—Charlotte Purnell.

Bachelor of Medicine (M.B.).—Oscar Frederick Don Airth and John Hamilton Barclay, College of Medicine, Newcastle-upon-Tyne; Richard Murray Barrow, St. Bartholomew's Hospital; Michael Brennan, Joseph Jopling Brown, Eric Lawrence Hancock, Thomas Albert Hindmarsh, and William Hudson, College of Medicine, Newcastle-upon-Tyne; William Hughes, Edinburgh School of Medicine; Frank Hutchinson Kennedy, John Lumb, and Benjamin Bell Noble, College of Medicine, Newcastle-upon-Tyne; John Howard Owen, Guy's Hospital; Elliot Jessie Ramsbotham, London School of Medicine for Women; Felix Stephens Rood, University College, London; Madeline Rosa Shearburn, London School of Medicine for Women; and Eleanor Walkinshaw and Arthur Hyde Wear, College of Medicine, Newcastle-upon-Tyne.

Bachelor of Surgery (B.S.).—John Hamilton Barclay, College of Medicine, Newcastle-upon-Tyne; Richard Murray Barrow, St. Bartholomew's Hospital; Michael Brennan, Joseph Jopling Brown, Eric Lawrence Hancock, Thomas Albert Hindmarsh, William Hudson, Frank Hutchinson Kennedy, John Lumb, and Benjamin Bell Noble, College of Medicine, Newcastle-upon-Tyne; John Howard Owen, Guy's Hospital; Elliot Jessie Ramsbotham, London School of Medicine for Women; Felix Stephens Rood, University College, London; Joseph Albert Sacco, College of Medicine, Newcastle-upon-Tyne; Madeline Rosa Shearburn, London School of Medicine for Women; and Alfred Tulloch Thompson, Eleanor Walkinshaw, and Arthur Hyde Wear, College of Medicine, Newcastle-upon-Tyne.

Degree of Bachelor of Hygiene (B.Hy.).—Helen Grace Clark.

Diploma in Public Health (D.P.H.).—Helen Grace Clark.

UNIVERSITY OF BRISTOL.—At examinations held recently the following candidates were successful:—

FINAL EXAMINATION FOR THE DEGREES OF M.B., CH.B.

Pass-list.—Ernest Edgar Davies, Claude Alfred Heath Gee, Edmund Fairfield Thomas, and Arthur John Ormsby Wigmore.

Passed in Part I.—Maurice Charles Barber, Edwin Vincent Foss, Adolph Gottlob Hieber, Basil John Francis Jackson Taylor, and Colston Wintle.

Passed in Part II. (completing the examination).—Stuart Hardy Kingston.

SECOND EXAMINATION FOR THE DEGREES OF M.B., CH.B.

Richard Irving Dacre, Claude Jocelyn Delubere May, and Arthur Geoffrey Morris.

FINAL EXAMINATION FOR THE DEGREE OF B.D.S.

William John Lennox.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, ROYAL COLLEGE OF SURGEONS OF EDINBURGH, AND ROYAL FACULTY OF PHYSICIANS AND SURGEONS.—At the recent examinations held in Glasgow the following were successful:

First Professional Examination.—Devendra Bharadwaja, India; Thomas Pennington Bremner, Liverpool; Thomas Weir Drummond, Greenock; George Melven Harley, Glasgow; David Andrew Imrie, Glasgow; Charles Clouston Irvine, Arran; Mary Gray Jones, Motherwell; William M'Alpine, Wishaw; James M'Farlane, Paisley; Charles Reade, Glasgow; John Mellon Smeaton, Glasgow; William Templeton, Glasgow; and Thomas Robert Wilson, Garelochhead.

Second Professional Examination.—Andrew Crawford, Glasgow; Verdon Charles Hubert Dearden, Sheffield; John Ramsay Fleming, Airdrie; John Gilchrist, Hamilton; Madeline MacWilliam, Stranraer; Fred. Miller Murray, Glasgow; Alamu Ojo Olaribigbe, Sierra Leone; and Valentine Hutchinson Wardle, Bishop Auckland.

Third Professional Examination.—George Logan Clark, Glasgow; Hariharnath Hukku, Agra; James Grant Morrin, Glasgow; William Nevill Pennant Williams, Wales; James Noonan, Ireland; Evan Edward Owens, Wales; Alexander Morton Robertson, Glasgow; and John Watt, Glasgow.

Final Examination.—Diwan Jai Chand, India; Husain Buksh, Punjab; Harry Joseph Burke, Ireland; Robert Miller Danks, Coatbridge; Colin Hunter, Glasgow; John Boyd Michie, Alva; Francis Patrick Quirk, New South Wales; Morris William Rees, North Wales; William Wood Shorten, Ireland; Abraham Hertz Silverman, Russia; Gulab Singh, Punjab; William Minnis Thomson, Ireland; and James MacMurchy Watson, Glasgow.

FOREIGN UNIVERSITY INTELLIGENCE.—*Copenhagen:* Dr. Valdemar Henriques has been appointed to the chair of Physiology, in succession to Dr. Ch. Bohr, deceased.—*Kiel:* Dr. Hentze, who has charge of the Dental Clinic, has been granted the title of Professor.—*Jena:* Dr. Roessle of Munich has been appointed Professor of Pathological Anatomy in succession to Dr. Dürck.—*Königsberg:* Dr. Ernst Sachs has been recognised as *privat-docent* of Midwifery and Gynæcology.—*Lausanne:* Professor Askenazi of Geneva has been offered the chair vacated by the death of Professor Stilling.—*Leyden:* Dr. J. P. H. van Kerchoff has been appointed Lecturer on Dermatology.—*Marburg:* Dr. Otto Veit has been recognised as *privat-docent* of Anatomy.—*Philadelphia (University of Pennsylvania):* Dr. John B. Deaver has been appointed to the chair of Clinical Surgery in succession to Dr. E. Martin.—*Naples:* Dr. Michele Pellegrino has been recognised as *privat-docent* of Medical Pathology.—*Sassari:* Dr. Tommaso Casoni has been recognised as *privat-docent* of Internal Pathology.—*St. Petersburg (Military Medical Academy):* Dr. G. W. Fleischer has been recognised as *privat-docent* of Infectious Diseases and Bacteriology.—*Vienna:* An Institute of Experimental Psychology is to be established under the direction of Professor August Stöhr.—*Würzburg:* Dr. Gerhardt, professor in Basle, has been appointed to the chair of Clinical Medicine in succession to Dr. von Leube, who is retiring.

AN AMENDE.—Our attention has been called by Dr. F. G. Clemow, British delegate on the Constantinople Board of Health, to the fact that in an article published in THE LANCET of April 29th, written by Dr. G. Douglas Gray and entitled "A Report on the Plague Outbreak in Manchuria and North China," a passage on p. 1155 is a quotation from an article communicated to THE LANCET two years ago by Dr. Clemow entitled "Some Hitherto Unknown Centres of Plague in the Kirghiz Steppes." We are sure that Dr. Gray would like to make this acknowledgment to Dr. Clemow, while our readers can see that when the quotation occurred the author believed himself to be reciting a passage in an editorial article. We regret that specific reference to the work of the British delegate should have been omitted.

CORONATION MEDALS FOR AMBULANCE WORK.—The King has conferred silver Coronation medals upon the following officers of the St. John Ambulance Brigade in recognition of their valuable services on ambulance duty during the time of the Coronation festivities:—The Chief Commissioner (Colonel Sir James Clark, Bart., C.B.), the Medical Officer-in-Chief (Mr. Edmund Owen), the Lady Superintendent-in-Chief of Nursing Corps and Divisions (Lady Perrott); the following Deputy Commissioners of Districts—Colonel C. J. Trimble, C.M.G., Mr. S. C. Wardell, Colonel G. S. Elliston, C.B., Mr. J. S. Griffiths, Colonel E. Cureton, Lieutenant-Colonel Lees Hall, Lieutenant C. B. Palmer; and the Assistant Commissioner of the Metropolitan or Prince of Wales's Corps (Mr. W. H. Morgan).

LITERARY INTELLIGENCE.—The Oxford University Press announces the immediate publication of a historical treatise on "The King's Evil," by Dr. Raymond Crawford. The volume contains a number of curious illustrations.—The managing committee of the Sleeping Sickness Bureau, Royal Society, Burlington House, London, W., has decided to publish a Quarterly Bulletin dealing with the *Leishmania* group of diseases. Dr. C. M. Wenyon, Protozoologist to the London School of Tropical Medicine, will undertake this part of the work. A list of references is now in preparation and will form the first number. Application for copies of the work should be made to the director, who asks that other publications bearing on the subject may be sent to the Bureau library.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following is the prize list of the summer session, 1911:—Barker Anatomical Prize, £31 10*s.*, Miss Eleanor Taylor; Special Prize, £15 15*s.*, T. Mulcahy. Carmichael Scholarship, £15, E. Connell. Mayne Scholarship, £8, J. T. Duncan. Medals in Operative Surgery, J. T. Duncan, gold medal; H. J. Burke, silver medal. Stoney Memorial Gold Medal in Anatomy, M. Shipsey. Practical Histology: G. M. C. Powell, first prize (£2) and medal; W. P. Cooney, second prize (£1) and certificate. Practical Chemistry: V. A. Power, first prize (£2) and medal; M. Moran, second prize (£1) and certificate. Public Health and Forensic Medicine: G. N. N. Smyth, first prize (£2) and medal; G. E. Pepper, second prize (£1) and certificate. Materia Medica: G. N. Smyth, first prize (£2) and medal; E. Connell, second prize (£1) and certificate. Biology: N. E. Stephens, first prize (£2) and medal; K. Elms and L. M. Rowlett (equal), second prize (£1) and certificate.—The Barker anatomical prize for 1912 (of £21 for a Dissection of the Phrenic Nerve) is offered for competition and is open to any student whose name is on the anatomical class-list of any school in the United Kingdom.

The preparations entered must be placed in charge of the curator of the Museum, Royal College of Surgeons in Ireland, Dublin, on or before April 30th, 1912. The dissection for which a prize is awarded will become the property of the College. Those competitors who enter dissections for which prizes are not awarded, but which show sufficient merit, may be refunded such amount of the cost of production as the examiners deem fit. Full particulars can be obtained from the curator of the museum.

THE WANDSWORTH MORTUARY.—The condition of the Wandsworth mortuary was against referred to in the course of an inquest last week. The body in question was so badly decomposed that the father of the deceased had been advised not to see it. This state of affairs has on several occasions been the subject of protests by medical men. At the last meeting of the Wandsworth borough council a communication was received from an association of ratepayers asking what steps were being taken with regard to mortuary provision. To the proposal that the association should be informed that the matter was under consideration, a councillor moved that it should be added that the matter had been under consideration for 19 years. The council's consciousness of municipal dignity prevented this from being carried. It is understood that the council is waiting for the re-apportionment of the coroners' districts within the borough of Wandsworth.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors of this society was held on July 12th. Dr. W. Rigden, Vice-President, took the chair, in the absence of the President. Three gentlemen were elected members of the society and the death of a member was reported. The sum of £1371 was voted for the payment of the half-yearly grants to the annuitants of the charity—namely, 48 widows and 16 orphans. Relief is only granted to the widows and orphans of deceased members, and since the last court five letters had been received from widows of medical men asking for relief, but this had to be refused, as their husbands had not been members of the society. The invested funds of the society now amount to £101 600. Membership is open to any registered medical practitioner who at the time of his election is resident within a 20 mile radius of Charing Cross. The annual subscription is 2 guineas, special rates for life membership varying with the age of the applicant. The next election of members will be on Oct. 11th, and application forms must be sent to the secretary on or before Sept 20th; these may be obtained, together with further particulars, on application to the secretary at the offices of the society, 11, Chandos-street, Cavendish-square, London, W.

ASSOCIATION OF INFANT CONSULTATIONS AND SCHOOLS FOR MOTHERS.—A general meeting of the Society of Infant Consultations was held recently at the Marylebone Dispensary, when Dr. Eric Pritchard explained that the object of the meeting was to consider the proposed scheme of amalgamation with the Department of Schools for Mothers of the National League for Physical Education and Improvement. The new organisation would be called the Association of Infant Consultations and Schools for Mothers, and would have a much wider field of usefulness than under the present conditions. The secretarial duties would in future be carried on by the permanent staff of the League. The new scheme, which was proposed by Dr. F. Langmead and seconded by Miss FitzGerald, was unanimously adopted by the meeting. The aims and objects of the new association are to bring into closer relationship all who are engaged or interested in the work of infant consultations, schools for mothers, and similar institutions; to promote the establishment of such institutions and to advise as to their organisation; to organise conferences and other meetings; to record the experience gained by individuals engaged in the work, and collect literature, statistics, and reports bearing on the subject; to supply such institutions with literature, charts, diagrams, &c.; and to promote coöperation with all societies working for infant welfare. The medical subcommittee will continue the work of the present Society of Infant Consultations and the educational subcommittee that of the Department of Schools for Mothers. The secretaries of the medical subcommittee will have the right, *ex officio*, to attend the meetings of the educational subcommittee, and *vice-versâ*.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

National Insurance Bill Amendments.

MORE than a dozen pages of amendments to Clause 14 of the National Insurance Bill are now down on the notice paper of the House of Commons. The Chancellor of the Exchequer has slightly altered the terms of his amendment, of which notice was given more than a week ago. It now reads: "The regulations made by the Insurance Commissioners shall provide for the arrangements made being subject to the approval of the Insurance Commissioners and being such as to secure that insured persons shall, save as hereinafter provided, receive adequate medical attendance and treatment from the medical practitioners with whom arrangements are so made," &c. The words "save as hereinafter provided" are new.

Sir PHILIP MAGNUS, Dr. HILLIER, Mr. CAVE, Mr. LESLIE SCOTT, and Sir HENRY CRAIK have given notice of their intention to move the insertion of the following provisions in this clause, which deals with the administration of medical benefit: "Every insured person whose income from all sources exceeds one hundred and four pounds a year and who has become entitled to medical benefit shall be entitled, in lieu of medical attendance and treatment (including medicines), to receive an equivalent pecuniary allowance towards the expenses of medical attendance and treatment (including medicines) to be calculated and paid to or for him in accordance with regulations made by the Insurance Commissioners, and any insured person whose income from all sources does not exceed one hundred and four pounds a year, and who has become entitled to medical benefit, shall be entitled to elect in lieu of medical attendance and treatment (including medicines) to receive such equivalent pecuniary allowance as above mentioned. For the purposes of this section the income of an insured person shall be deemed to exceed one hundred and four pounds a year if his income during the calendar year preceding the date when he becomes entitled to medical benefit exceeded that sum, and any question as to the amount of such income shall be determined by the Local Health Committee."

Dr. ADDISON will move the insertion of the following provision: "Subject to regulations by the Insurance Commissioners, an approved society or Local Health Committee by which medical benefit is administered may allow any persons, and may, on the ground of means, require any persons, in lieu of receiving medical treatment and attendance, including medicines and appliances under such arrangements as aforesaid, to make their own arrangements for receiving such medical treatment and attendance, including medicines and appliances, and shall in respect of all persons who have so made their own arrangements contribute towards the cost of their medical treatment and attendance, including medicine and appliances, sums not exceeding in the aggregate the cost which the society or committee would otherwise have incurred in providing medical benefit for them."

Mr. LLOYD GEORGE this week has placed amendments on the notice paper which, if adopted, would make Subsection 3 of Clause 14 read as follows:—

"*A Local Health Committee shall, on the request of any approved society, take over* the administration of medical benefit among such members of the society entitled thereto as may be resident in the county or county borough for which the committee is established, *on such terms as failing agreement may be determined by the Insurance Commissioners;* and *where any such committee has so taken* over such administration there shall in each year be paid out of moneys credited to the society such sum in respect of every member of the society entitled to the benefit and resident in the county or county borough as may *have been so agreed or determined.*"

The alterations which the Chancellor of the Exchequer proposes to make are printed in italics.

An amendment is also tabled by the Chancellor of the Exchequer to make it apparent that the powers of councils of a county or county borough with respect to excess expenditure are optional.

Mr. LLOYD GEORGE has given notice to move the insertion of the following subsection in Clause 47 (erection of sanatoria, &c.):—"A Local Health Committee may, with the consent of the Insurance Commissioners, enter into agreements with any person or authority that, in consideration of such person or authority providing treatment in a sanatorium or other institution as aforesaid for insured persons recommended by the committee for sanatorium treatment as may be agreed, the committee will contribute out of the funds available for sanatorium benefit towards the maintenance of the institution such annual or other payment, and subject to such conditions and for such period as may be agreed, and any such agreement shall be binding on the committee and their successors, and any sums payable by the committee thereunder may be paid by the Insurance Commissioners, and deducted from the sums payable to the committee for the purposes of sanatorium benefit."

The right honourable gentleman has placed on the notice paper the following new clause in respect to Local Medical Committees:—

"Where a local medical committee has been formed for any county or county borough, and the Insurance Commissioners are satisfied that such committee is representative of the duly qualified medical practitioners resident in the county or county borough, they shall recognise such committee, and where a Local Medical Committee has been so recognised it shall, subject to regulations made by the Insurance Commissioners, be consulted by the Local Health Committee on all general questions affecting the administration of medical benefit, including the arrangements made with medical practitioners giving attendance and treatment to insured persons, and shall perform such other duties, and shall exercise such powers as may be determined by the Insurance Commissioners."

Medical Officers of Health Superannuation Bill.

Dr. HILLIER has introduced into the House of Commons a Bill "to provide for superannuation allowances to medical officers of health employed by local authorities and for contributions towards such allowances by those officers, and to make other relative provisions." It was read a first time. The Bill has the support of Mr. HENRY FORSTER, Sir CLEMENT HILL, Colonel HICKMAN, Mr. JOHN ROBERTSON, and Mr. BARNES.

Pure Flour Bill.

Sir JOHN LONSDALE has introduced a Pure Flour Bill in the House of Commons, and it has been read a first time. Its object is "to prohibit the artificial bleaching of flour, whether by chemical processes of manufacture or by the addition of chemical or other substances."

Experiments on Living Animals.

The Home Office return showing the number of experiments on living animals during the year 1910 under licences granted under the Act 39 & 40 Vict., c. 77, distinguishing the nature of the experiments, has been published. The report is signed by Professor G. D. THANE, and sets forth that nine new places were registered for the performance of experiments, and three places were removed from the register during the year. The total number of licensees was 542. The number of experiments conducted under anæsthetics was 4939. Inoculations, hypodermic injections, and a few other proceedings without anæsthetics numbered 90,792. The total number of experiments was thus 96,731. The returns show that 49,662 experiments were performed by 27 licensees working at eight institutions in the course of cancer investigations. Sir W. THORNLEY STOKER makes the report in regard to Ireland, where 254 experiments were conducted during the year.

Effect of National Insurance on Hospitals.

A deputation representing the British Hospitals Association, the Hospital Saturday Fund for London, and the Central Hospitals' Council of London was received by Mr. LLOYD GEORGE on Tuesday, July 25th, in order that the members of it might put before him their views on the effect of the National Insurance Bill on hospitals. The general view expressed by the spokesmen of the deputation was a fear that the contributions of workmen and employers should be diverted from hospitals, and the work of these institutions restricted and crippled. The Chancellor of the Exchequer declined to regard the anticipations of the deputationists as likely to be realised. Their apprehensions, he thought, would not be justified by results. After the momentary agitation had passed people would do their duty towards hospitals in the same way as in the past. He pointed out that approved societies under the National Insurance Bill were empowered to contribute to hospitals. The right honourable gentleman emphasised the voluntary character of these institutions and suggested that State assistance might bring with it a certain amount of State control. In conclusion he threw out the suggestion that the hospital authorities should confer with the medical profession on the subject, and then they should come to him with some sort of arrangement with respect to those cases which came to hospitals and were taken off the hands of medical men.

HOUSE OF COMMONS.

WEDNESDAY, JULY 19TH.

National Insurance and Maternity Benefits.

Mr. WORTHINGTON-EVANS asked the Chancellor of the Exchequer whether a member of a Friendly Society granting a 30*s.* maternity benefit would, if he continued to subscribe for such benefit, be also entitled to receive the 30*s.* maternity benefit under the National Insurance Bill; and whether the limitation that sickness benefits should not exceed the total wages would interfere with the additional 30*s.* maternity benefit if the sickness benefits already assured equalled the wages.—Mr. ILLINGWORTH (on behalf of Mr LLOYD GEORGE) replied: The right of an insured person to receive maternity benefit under the National Health Insurance will be unaffected by his having effected an insurance for an additional maternity benefit outside the national scheme. The limitation of sickness benefits to total wages does not apply to maternity benefit.

Medical Referees and the Workmen's Compensation Act.

Mr. GILL asked the Secretary of State for the Home Department whether he had further considered the question of appointing a few medical referees who would devote the whole of their time to their duties under the Workmen's Compensation Act; and what decision he had come to in the matter.—Mr. CHURCHILL answered: There would be considerable difficulties in connexion with the appointment of whole-time medical referees. Under the present system referees are appointed for particular county court circuits, the main part of their duties being to advise in cases in which the judges require their assistance, and the work in any circuit would not be sufficient to occupy a referee's whole time. If the referees were to be whole-time officers, the area for which they would have to be appointed would be so large that a great deal of time would be taken up and expense incurred in travelling, and the arrangement would also be much less convenient to the workmen in the cases where they have to attend on the referee. Another important point is that it is the practice to select the referees as far as possible from doctors engaged in active surgical work, the experience gained in which is of great advantage in deciding on the difficult questions referred to them as referees, and I am doubtful whether I should be able to secure medical men of the same high standing if they were required to give their whole time. I fully agree that the question is one which should be considered, but I think it must stand over till the general inquiry into the Act or possibly the somewhat similar inquiry into the appointment and duties of certifying surgeons is set on foot.

Medical Inspection of School Children.

Mr. CHARLES BATHURST asked the President of the Board of Education whether, in view of the repeated assurances on the part of the Government that adequate grants would be made by Parliament towards the cost entailed by the medical inspection of school children under the Education (Administrative Provisions) Act, 1907, and of the fact that during the last two years the expenditure under this head had been steadily increasing and was already in many cases double the amount originally estimated, and the further fact that the object of medical inspection was of national importance, he would take steps to relieve the local education authorities of part of the increasing burden thrown upon them for this purpose.—Mr. RUNCIMAN said in reply: I have constantly stated in this House and elsewhere that the provision of additional funds from Imperial sources in aid of local expenditure on medical inspection can only be dealt with in connexion with the general question of the relations between Imperial and local taxation which are being considered by a Departmental Committee.

Report of Royal Commission on Tuberculosis.

Sir JOHN LONSDALE asked the President of the Local Government Board what action he proposed to take to give effect to the recommendations of the Royal Commission on Tuberculosis.—Mr. BURNS replied: The report of the Royal Commission, which has just been issued, is receiving my consideration.

Sir JOHN LONSDALE asked the Chief Secretary to the Lord Lieutenant of Ireland whether his attention had been called to the Final Report of the Royal Commission on Tuberculosis, and whether he intended to take any action in Ireland to give effect to the recommendations of the Commission.—Mr. REDMOND BARRY (on behalf of Mr. BIRRELL) replied: There has not yet been time to consider fully the Final Report of the Royal Commission on Tuberculosis with a view to seeing how far its recommendations are applicable to Ireland.

Vaccination and Small-pox.

Mr. BENTHAM asked the President of the Local Government Board whether the increase in the number of children exempted from vaccination through the operation of the Vaccination Acts of 1898 and 1907, and especially since the Act of 1907 came into force, had been accompanied by any noticeable increase in the number of deaths from small-pox in children under 10 years of age.—Mr. BURNS said in reply: There has been but little small-pox in this country since 1907, and up to the end of 1910 no noticeable increase in the deaths of children under 10 from this disease. Figures for 1911 are not yet available.

Mr. ALBERT SMITH asked whether the right honourable gentleman would state the number of cases of small-pox reported in Bury, Stalybridge, Wallasey, and Birmingham this year, with the vaccinal condition of the patients, also the number of deaths, and the vaccinal condition of the victims.—Mr. BURNS answered: In Bury 30 cases of small-pox had occurred, of which none were fatal. The age incidence of these patients cannot be given at present. Eleven of the patients are known to have been unvaccinated, and 16 had been vaccinated in infancy. The Board has no information on the vaccinal condition of the three remaining cases. The Wallasey and Birmingham outbreaks are so recent that no precise information is as yet available. There were 14 cases of small-pox at Stalybridge, of which none were fatal. Of these cases, six were unvaccinated, seven were vaccinated, and one was said to have had a previous attack of small-pox. All the cases under 20 years of age were unvaccinated.

THURSDAY, JULY 20TH.

Milk and Tuberculosis.

Mr. CHARLES BATHURST asked the Parliamentary Secretary to the Board of Agriculture whether, in the light of the final report of the Royal Commission on Human and Animal Tuberculosis, the Board would, as in some continental countries, make it compulsory for all cattle whose milk was sold to the public to be examined periodically to ascertain their freedom from transferable tuberculosis as evidenced by emaciation or visibly tuberculous udders without necessarily employing the sometimes misleading tuberculin test, and thus produce a national register of sound cattle the milk of which could be purchased with confidence by the public.—Sir EDWARD STRACHEY replied: In view of the fact that there are over two million cows in milk in Great Britain the proposal made by the honourable Member is one which might impose a heavy charge upon the local rates and therefore requires a very careful consideration.

National Insurance and Voluntary Hospitals.

Mr. EVELYN CECIL asked the Chancellor of the Exchequer whether he could give any information as to the extent to which members of friendly societies had in the past had medical attendance at voluntary hospitals instead of, or in addition to that of, their club doctor, and whether such claims upon hospitals were likely to be reduced or increased by the National Insurance Bill.—Mr. HOBHOUSE (on behalf of Mr. LLOYD GEORGE) answered: I fear no such information is available. I think the honourable Member is in as good a position as my right honourable friend to estimate the probable effect of the Bill in the direction indicated.

MONDAY, JULY 24TH.

Sleeping Sickness in Uganda.

Mr. MITCHELL THOMSON asked the Secretary of State for the Colonies whether any further report on the measures adopted for the suppression of sleeping sickness in Uganda was in course of preparation, and, if so, when it would be presented; whether the report of the Government entomologist for Uganda, 1909-10, had yet been printed; and, if so, whether he would lay it before Parliament.—Mr. L. HARCOURT replied: No further report is being prepared for presentation to Parliament, as information on all matters in connexion with sleeping sickness is now made accessible to the public through the bulletin which is issued monthly by the Sleeping Sickness Bureau. The report of the Government entomologist for Uganda, 1909-10, has been printed in the Protectorate, and I shall be glad to send a copy of it to the library of the House.

National Insurance Bill Topics.

Mr. HOUSTON asked the Chancellor of the Exchequer whether he was aware that in most of the Continental countries it was illegal for medical practitioners to dispense and for chemists to prescribe; and whether he proposed to adopt the Continental system in the National Insurance Bill.—Mr. HOBHOUSE (on behalf of Mr. LLOYD GEORGE) replied: I do not think an amendment of the law in the direction suggested would be in place in an Insurance Bill.

Mr. HOUSTON asked whether the right honourable gentleman had official information as to the effect of the Sickness Insurance Act of Germany upon the interests of German doctors owing to the small pay or fees they received under it, and showing that the medical treatment given to the insured was thereby prejudicially affected; and, if so, whether he would publish the same; and, if not, whether he would arrange for a Commission of British doctors to be sent to Germany to inquire into, and report upon, the working of the Insurance Act in that country.—Mr. HOBHOUSE answered: The German sickness insurance societies have had their own disputes with the doctor, and as a result are now paying higher fees than formerly, but there is no evidence to show that the medical treatment given to the insured is now unsatisfactory. No doubt the medical service is most efficient where the sickness societies and the doctor are satisfied with the contracts under which it is given.

Indian Medical Service.

Mr. KELLY asked the Under Secretary of State for India whether any posts in the higher grade of the medical service of India, hitherto reserved for military doctors, were now set apart for Indian civil doctors; if so, how many of them had been actually filled so far; and for what reasons were the other posts still closed to Indian medical practitioners.—Mr. MONTAGU replied: The answer to the first part of the question is No; the rest therefore does not arise.

Mr. KELLY asked whether the honourable gentleman was yet able to state the annual cost to the Indian Treasury for the upkeep and education of Europeans and Eurasians for the military assistant surgeon grade; and whether these ranks were still closed to Indian doctors with university and registrable qualifications obtained at their own cost.—Mr. MONTAGU said in reply: The answer to the first part of the question is No, and to the second part Yes.

TUESDAY, JULY 25TH.

Tuberculosis and Milk.

Captain FABER asked the President of the Local Government Board to state whether he could propose legislation to prevent people suffering from consumption from being employed in the milk trade.—Mr. BURNS answered: The subject is under my consideration, but I am not at present prepared to state what action will be taken.

Captain FABER further asked the right honourable gentleman whether he could state, seeing that the Royal Commission on Tuberculosis had reported on the dangers of impure milk, what milk, if any, was coming in from abroad; and whether steps would be taken to closely examine such milk; and what such steps were.—Mr. BURNS said in reply: The importation of fresh milk from abroad has not yet been resumed. When this occurs further series of samples will be taken by the Board's inspectors and will be examined for the presence of impurities, including the tubercle bacillus.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

BAINBRIDGE, F. A., M.D., D.P.H. Cantab., has been appointed Professor of Physiology in the University of Durham.

BARTON, G. H., M.R.C.S., L.R.C.P. Edin., has been appointed Certifying Surgeon under the Factory and Workshop Act for the Market Rasen District of the county of Lincoln.

BRENTNALL, J. C., M.R.C.S., L.R.C.P., has been appointed House Physician to the Manchester Royal Infirmary.

BROWN, A. MIDDLETON, M.B., Ch.B. Aberd., has been appointed Resident Medical Officer at the Aberdeen Royal Infirmary.

DONALDSON, ROBERT, D.P.H., has been appointed Demonstrator of Pathology in the University of Bristol.

FISHER, A. G. T., L.R.C.P., M.R.C.S., has been appointed Demonstrator of Anatomy in the University of Bristol.

HILL, E. FALKNER, M.B., Ch.B. Vict., has been reappointed Anæsthetist to the Manchester Royal Infirmary.

JEFFERSON, G., F.R.C.S. Eng., has been reappointed Anæsthetist to the Manchester Royal Infirmary.

MOIR, EDWARD, L.S.A. Lond., has been reappointed Anæsthetist to the Manchester Royal Infirmary.

MURRAY, JAMES R., M.B., Ch.B. Aberd., has been appointed Resident Medical Officer at the Aberdeen Royal Infirmary.

RAMSBOTTOM, A., M.D. Vict., has been reappointed an Assistant Director of the Clinical Laboratory at the Manchester Royal Infirmary.

RAY, J. HOWSON, F.R.C.S. Eng., has been appointed Honorary Surgeon to the Manchester Royal Infirmary.

REID, PETER, M.B., Ch.B. Aberd., has been appointed Resident Medical Officer at the Aberdeen Royal Infirmary.

STEELL, GRAHAM, M.D., C.M. Edin., F.R.C.P. Lond., has been appointed Honorary Consulting Physician to the Manchester Royal Infirmary.

WILLIAMSON, R. T., M.D. Lond., F.R.C.P. Lond., has been appointed Honorary Physician to the Manchester Royal Infirmary.

WORMALD, T. L., M.D., B.Hy., D.P.H. Durh., has been appointed Whole-time Medical Officer and Public Vaccinator to the Darlington Union.

WRIGHT, G. A., F.R.C.S. Eng., has been appointed Honorary Consulting Surgeon to the Manchester Royal Infirmary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ASHTON-UNDER-LYNE, DISTRICT INFIRMARY AND CHILDREN'S HOSPITAL.—Senior House Surgeon. Salary £120 per annum, with board, residence, and laundry.

AYLESBURY, ROYAL BUCKINGHAMSHIRE HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board, lodging, and washing.

BIRMINGHAM AND MIDLAND EYE HOSPITAL.—Junior House Surgeon. Salary £70 per annum, with board and residence.

BIRMINGHAM GENERAL HOSPITAL.—House Physician for six months. Salary £50 per annum, with residence, board, and washing.

BRIDGWATER HOSPITAL.—House Surgeon, unmarried, for six months. Salary at rate of £100 per annum, with board, lodging, and washing.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—Resident Medical Officer, unmarried. Salary £160 per annum, with rooms, attendance, &c.

BRIGHTON, ROYAL SUSSEX COUNTY HOSPITAL.—House Physician, unmarried. Salary £80 per annum, with apartments, board, and laundry.

BUXTON, DERBYSHIRE, DEVONSHIRE HOSPITAL.—Assistant House Surgeon for six months. Salary £70 per annum, with apartments, board, and laundry.

CARLISLE NON-PROVIDENT DISPENSARY.—Resident Medical Officer. Salary £150 per annum, with apartments.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn-road, W.C.—Assistant Surgeon.

CITY OF LONDON LYING-IN HOSPITAL, City-road, E.C.—Physician.

COLCHESTER, ESSEX COUNTY HOSPITAL.—House Physician. Salary £80 per annum, with board, residence, and washing.

COVENTRY AND WARWICKSHIRE HOSPITAL.—Junior House Surgeon. Salary £80 per annum, with rooms, board, washing, and attendance.

DEVONPORT, ROYAL ALBERT HOSPITAL.—Assistant House Surgeon for six months, unmarried. Salary at rate of £50 per annum, with board, apartments, and laundry.

DUMFRIES, CRICHTON ROYAL INSTITUTION.—Pathologist and Clinical Pathologist. Salary £250 per annum, with quarters, board, and laundry.

GLAMORGAN COUNTY COUNCIL.—Medical Officer (female). Salary £250 per annum.

GUILDFORD, ROYAL SURREY COUNTY HOSPITAL.—House Surgeon. Salary £100 per annum, with board, residence, and laundry. Also Assistant House Surgeon. Salary £75 per annum, with board, residence, and laundry.

HELLINGLY, EAST SUSSEX COUNTY ASYLUM.—Locum Tenens Assistant Medical Officer for about six weeks. Salary 4 guineas a week, with board, lodging, washing, and attendance.

HEMEL HEMPSTEAD, HERTS, WEST HERTS HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with rooms, board, and washing.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary £100 per annum, with board, residence, and washing.

LEICESTER EDUCATION COMMITTEE. — Assistant School Medical Officer. Salary £250 per annum.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Resident Medical Officer. Salary £120 per annum, with board, lodging, and washing. Also Assistant House Surgeon for six months. Salary at rate of £105 per annum.

MACCLESFIELD, CHESHIRE COUNTY ASYLUM, Parkside.—Junior Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, and laundry.

MACCLESFIELD GENERAL INFIRMARY.—Senior House Surgeon. Salary £100 per annum, with board and residence.

MANCHESTER, COUNTY ASYLUM, Prestwich.—Locum Tenens, unmarried, for six to eight weeks. Salary 4 guineas per week, with apartments, board, &c.

MANCHESTER ROYAL INFIRMARY.—Assistant Surgical Officer. Salary £35 per annum.

MIDDLESBROUGH, NORTH RIDING INFIRMARY. — Assistant House Surgeon. Salary £75 per annum, with residence, board, and washing.

NORWICH, NORFOLK AND NORWICH HOSPITAL.—House Surgeon, unmarried. Salary £80 per annum, with board, lodging, and washing.

NOTTINGHAM GENERAL DISPENSARY.—Assistant Resident Surgeon, unmarried. Salary £160 per annum, with apartments, attendance, &c.

NOTTINGHAM GENERAL HOSPITAL.—Assistant House Surgeon. Salary at rate of £100 per annum, with board, lodging, and washing.

OCHILTREE PARISH COUNCIL, Ayrshire.—Medical Officer. Salary £40 per annum.

POPLAR HOSPITAL FOR ACCIDENTS, Poplar, E.—Assistant House Surgeon for six months. Salary at rate of £80 per annum, with board and residence.

PRINCE OF WALES'S GENERAL HOSPITAL, Tottenham, N.—Junior House Physician. Salary £50 per annum, with residence, board, and laundry.

QUEEN'S HOSPITAL FOR CHILDREN, Hackney-road, Bethnal Green, N.E.—House Surgeon for six months. Salary at rate of £80 per annum, with board, residence, and washing.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon. Salary £80 per annum, with board, lodging, and washing.

ROYAL PORTSMOUTH HOSPITAL.—House Physician for six months. Salary £75 per annum, with board, &c.

ST. GEORGE'S UNION INFIRMARY, Fulham-road, S.W.—Second Assistant Medical Officer. Salary £130 per annum, with board, residence, and washing.

ST. MARY'S INFIRMARY, Highgate Hill, N.—Junior Assistant Medical Officer. Salary at rate of £100 per annum, with board and residence.

ST. PANCRAS INFIRMARY (SOUTH) AND WORKHOUSE.—Senior Assistant Medical Superintendent and Senior Assistant Medical Officer. Salary at rate of £135 per annum.

SALFORD UNION INFIRMARY.—Resident Assistant Medical Officer, unmarried. Salary £120 per annum, with apartments, attendance, and rations.

SALISBURY INFIRMARY.—Assistant House Surgeon, unmarried. Salary £50 per annum, with apartments, board, lodging, and washing.

SHEFFIELD ROYAL HOSPITAL.—Assistant House Surgeon and Assistant House Physician, unmarried. Salary £60 each per annum, with board, lodging, and washing.

SHREWSBURY, SALOP AND WENLOCK ASYLUM.—Junior Male Assistant Medical Officer, unmarried. Salary £150 per annum, with board, apartments, washing, &c.

SOUTHAMPTON, ROYAL SOUTH HANTS AND SOUTHAMPTON HOSPITAL.—House Physician. Salary £100 per annum, with rooms, board, and washing. Also Junior House Surgeon for six months. Salary £60 per annum, with rooms, board, and washing.

SUNDERLAND, MONKWEARMOUTH AND SOUTHWICK HOSPITAL.—House Surgeon. Salary £100 per annum, with board and lodging.

TAUNTON AND SOMERSET HOSPITAL, Taunton.—Resident Assistant House Surgeon for six months. Salary at rate of £70 per annum, with board, lodging, and laundry.

TAUNTON, SOMERSET AND BATH ASYLUM, Cotford.—Assistant Medical Officer, unmarried. Salary £140 per annum, with apartments, board, laundry, &c.

THROAT HOSPITAL, Golden-square, W.—Surgical Registrar.

WALTHAMSTOW, LEYTON, WALTHAMSTOW, AND WANSTEAD CHILDREN'S AND GENERAL HOSPITAL.—Resident House Surgeon. Salary £100 per annum, with board, rooms, and washing.

WARRINGTON INFIRMARY AND DISPENSARY.—Junior House Surgeon. Salary at rate of £100 per annum, with board, lodging, and laundry.

WEST HAM AND EASTERN GENERAL HOSPITAL, Stratford, E.—Junior House Physician. Salary £75 per annum.

WEST HAM UNION WORKHOUSE, Union-road, Leytonstone, N.E.—First Assistant Resident Medical Officer. Salary £150 per annum, with usual allowances.

WESTMINSTER HOSPITAL.—Assistant House Surgeon for two months. Board provided. Also Resident Obstetric Assistant for six months. Board and lodging provided.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon, unmarried. Salary £100 per annum, with board and residence.

WOLVERHAMPTON AND MIDLAND COUNTIES EYE INFIRMARY.—House Surgeon. Salary £80 per annum, with apartments, board, and laundry.

WORCESTER COUNTY AND CITY ASYLUM, Powick.—Third Assistant Medical Officer, unmarried. Salary £140 per annum and all found.

Births, Marriages, and Deaths.

BIRTHS.

COOPER.—On July 20th, at "Lansdowne," Hampton-on-Thames, the wife of Harold Merriman Cooper, M.B. Lond., of a son.

RIDGE.—On July 20th, at Carlton House, Enfield, the wife of R. Leslie Ridge, M.B., B.S. Lond., of a daughter.

SAWYER.—On July 21st, at Farquhar-road, Edgbaston, Birmingham, the wife of James E. H. Sawyer, M.A., M.D., of a son.

MARRIAGES.

KIDD—CURRY.—On July 15th, at St. Lawrence Church, Isle of Wight, Walter Shirley Kidd, M.B., B.S. Lond., M.R.C.S., L.R.C.P., to Philippa Olive, third daughter of Mr. and Mrs. Curry.

DEATHS.

BULSTRODE.—On July 21st, very suddenly, Herbert Timbrell Bulstrode, M.A., M.D. Cantab., D.P.H., &c., Medical Inspector, H.M. Local Government Board.

RIDLEY.—On July 23rd, at The Asylum, Portsmouth, Edward Hope Ridley, M.D. Edin., aged 45 years, Medical Officer at the Asylum.

ROBERTS.—On July 19th, at Chung-King, China, Surgeon R. P. Middleton Roberts, H.M.S. *Teal*. (By Admiralty cable.)

STILES.—On July 19th, at Spalding, Lincolnshire, Henry Tournay Stiles, M.D. St. And., J.P. Holland Division, Lincolnshire, aged 83 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

DEATH FROM ANTHRAX IN A LABORATORY.

UNDER the Workmen's Compensation Act, 1897, a death from anthrax poisoning was first held to be due to an "accident," entitling the dependents of the deceased to compensation, in the case of Brintons, Limited, *v.* Turvey (1905 A.C. 30), when the idea that this could be so was a novel one, and was strongly opposed by Lord Robertson, who delivered a dissentient judgment, expressing disapproval of the view that the inception of any disease could be regarded as due to an "accident." Since then, however, the Act of 1906, which now regulates workmen's compensation, has formally recognised certain industrial diseases as fitting subjects for compensation, and anthrax heads the list in Schedule III., which specifies the diseases and the processes to which the Act applies. The decision in Brintons, Limited, *v.* Turvey benefited workmen to a very limited extent only. The other diseases mentioned in the schedule, such as lead poisoning and ankylostomiasis, had formed the subject of judicial decisions before the Act of 1906 was passed, and it had been held that infection with them was not an accident. A distinction was drawn between anthrax commencing with infection through an abrasion of the skin, a disease attacking its victim with suddenness, and for the first inroad of which a date might be fixed, and diseases the onset of which was gradual, and their inception not to be assigned to a particular date. Anthrax, looked at from this point of view, was an accident; beat knee and conditions due to accumulated doses of lead were not; consequently, one worker's "disease" was a subject for compensation, and that of his neighbour in another equally dangerous process was not. The Act of 1906, however, now removes the unequal conditions created by its predecessor and by the House of Lords' decision, so far as the infection of workmen when engaged upon the specified processes is concerned.

HEALTH AND SANITATION IN WEI-HAI-WEI: OPIUM AND ALCOHOL.

THERE are several points of interest in the report for the year 1910 just received at the Colonial Office from Sir J. H. Stewart Lockhart, K.C.M.G., the Commissioner for the territory of Wei-hai-Wei. This territory, it may be recalled, was leased to Great Britain by China by a convention made on July 1st, 1898. It lies in latitude 37·30 N., longitude 122·10 E. It is in the Chinese province of Shantung, and comprises the island of Liu Kung, all the islands in the Bay of Wei-hai-Wei, and a belt of land ten English miles wide along the entire coast-line, with a total area of 285 square miles. Wei-hai-Wei is a port of call for steamers running to and from the North of China, and there is regular steam communication with the port of Shanghai. The Commissioner records that the general health during the year among both Europeans and Chinese was very good. There was an outbreak of measles on the island and mainland during the spring among the Chinese, but the type was of a mild nature, and few cases proved fatal. There were two cases of scarlet fever, probably imported from Chefoo, and one case of enteric fever. Dysentery was not at all prevalent. One European child died from that disease; all the other cases were of a mild form. Two cases of small-pox occurred. The general vaccination of the inhabitants of the Territory, which is carried out every year throughout the villages, may account to a great extent for the small number of cases of small-pox. The outbreak of plague in Manchuria caused much anxiety towards the end of the year, as many Chinese who emigrate from Wei-hai-Wei to Manchuria are in the habit of returning to their homes to celebrate the Chinese New Year, and it was feared that infection might be introduced through them. As the Territory has a land frontier extending over 34 miles and a coast line over 60 miles in length, to effectively prevent the introduction of disease would require a much larger staff than the Government possesses, and would necessitate the employment of many craft afloat, which are not available. But every precaution under the circumstances was taken, and though the disease spread to Chefoo, distant from Wei-hei-Wei 60 miles by land and 40 miles by sea, and reached other towns between the Territory and Chefoo, Wei-hai-Wei has up to the present time been fortunate to escape with only one case, which was imported and which proved fatal. The patient was nursed by the Lady Superior of the Franciscan Sisters, who all bravely and nobly volunteered their services as nurses in the event of an outbreak of plague. A campaign has been instituted against rats, but to judge from the number caught—only 1200 up to date—it seems that rats are not plentiful in the Territory. All those examined microscopically have been found free from the plague bacillus.

The sanitary condition of Port Edward and the Island continues to be satisfactory. The wells at Port Edward have been covered and fitted with pumps. The Chinese did not at first take kindly to the

pumps, but they now appreciate their convenience. The dairies and abattoir have been carefully inspected, and conservancy arrangements have worked well and been carried out efficiently. The highest monthly barometrical average was that of December, 30·626, and the lowest that of August, 29·354. The highest temperature recorded was 91° for June and July, and the lowest 2° in January and February. Rain and snow fell on 74 days, the annual rainfall being 36·18 in. July was the wettest month, with a rainfall of 10·63 in. In-patients treated during the year in the hospital on the island numbered 16, as compared with 23 in 1909, whilst the out-patients totalled 2277 as compared with 2635 in 1909. At the Port Edward Hospital there were 97 in-patients as compared with 112 in 1909 and 3063 out-patients as compared with 2826 in 1909. There were 123 operations.

During the past year the importation, sale, and smoking of opium were discouraged in every possible way. In 1909 the number of licensed smokers was reduced from 220 to 110, and during 1910 the number was still further reduced to 50. During 1909 the admissions to the refuge established by the Government for those desirous of abandoning the opium habit amounted to 31, whilst during last year they rose to 70, the ages of those admitted ranging from 24 to 74. The police were very active in discovering the illicit smoking and sale of opium, there having been during the year 135 convictions for breaches of the Opium Ordinance. This activity on the part of the police was naturally unpopular among those who have been accustomed to smoke opium, and led to the publication in certain Chinese newspapers printed in Manchuria, Chefoo, and Shanghai of serious libellous charges against the Government. No opium was imported under licence during the year and only one shop was licensed to sell opium. It may be impossible to prevent entirely the smuggling of opium into the Territory across the border or along the coast, but as every step possible is being taken to discourage the use of opium, and as public opinion among the Chinese of Wei-hai-Wei is, if anything, more than ever firmly set against the opium habit, there seems every reason to hope that opium smoking will become even a rarer habit than it is at present. But the diminution in the use of opium seems to be leading to an excessive use of alcohol, and though drunkenness cannot yet be said to be a prevalent vice cases of intoxication are undoubtedly more numerous than in previous years.

The total strength of the police force was three European inspectors, three Chinese sergeants, and 52 constables. The population of the Territory is estimated at 150,000, mostly Chinese, who inhabit 300 villages spread over an area of 285 square miles, so that there is about an average of one policeman to 3000 of the population. The Territory possesses no other local force, with the exception of a few marines, on which it could depend in the case of an emergency. The fact that such a small force is found sufficient for ordinary requirements shows how orderly and well-behaved the inhabitants of the Territory are. Attention has been called to the fact that in the Territory 90 per cent. of the persons who destroy themselves are females, and that as a rule no case of suicide among young people occurs, whilst such cases are said to be increasing in the West. The suicides last year, however, showed a larger proportion of males than usual, and among them was the suicide of a boy aged 15. He appears to have run away from home, but was brought back before he had gone very far. The loss of face caused by his failure to effect his object and the ridicule poured upon him by the village urchins, on account of his enforced return, drove him to hang himself. This case is an illustration of the slight causes which will induce Chinese to take their own lives.

ELECTRO-THERAPEUTIC APPARATUS.

Messrs. W. Watson and Sons of 313, High Holborn, London, W.C., have forwarded us their latest list of apparatus for electro-therapy and diagnosis, which an inspection shows is replete with all modern appliances and appurtenances. Many of the apparatus are made to the design of medical authorities upon the various methods of application. The list includes apparatus for static and sinusoidal currents, radiotherapy, thermotherapy, vibration, electrolysis, radioscopy, faradism, and so forth. The makers themselves have invented some ingenious and useful appliances for treatment.

PROGRESS OF DAVOS.

ACCORDING to the report received at the Foreign Office from Mr. W. R. Huggard, H.M. Consul, the number of British visitors recorded at Davos in 1910 was over 2500, as compared with 2140 in 1909. The numbers of such visitors had previously declined from 3000 in 1899 to about 2000 in 1908. During those same years a marked increase took place in the arrivals from all the other chief nations of Europe. The increase in the number of representatives from other nations is easy to understand. Owing to the excellence of its arrangements Davos offers special advantages both for invalids and for persons in search of outdoor winter sports. Consequent on the compulsory disinfection of rooms that have been occupied by persons suffering from tuberculosis, the danger of tuberculous infection is immensely reduced in Davos, especially in comparison with places where invalids are said not to be taken, but where no precautions are enforced. On this point, which seems to be grasped elsewhere, much misapprehension appears to exist at home. The majority of British subjects resident in the district came to Davos in the first instance on account of health—their own or that of immediate relatives. A small proportion only earn their livelihood in business or professional occupations. The young Englishman, by his ignorance of languages, is at a disadvantage in obtaining local employment in comparison with the young Swiss or German. The Queen Alexandra Sanatorium, which completed the first year of its active life in November, 1910, is proving of great value for the class for whom it is intended—people of small means affected with curable forms of pulmonary tuberculosis.

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

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WE shall publish this diary from time to time that our readers may have under their hands the dates of the approaching scientific Congresses. It is unnecessary to issue the lists of all these functions week by week, and we propose to make only such gatherings as will occur in the immediate future the subject of regular announcement. The following Congresses, Conferences, and Exhibitions are announced for July and August, 1911:—

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,, 12th–30th.—E.M.I. (Enseignement Médico-mutuel International) Tour in Scandinavia.
,, 15th–21st (Dublin).—Royal Institute of Public Health.
,, 21st–23rd (Larvik).—Fourteenth Norwegian Physicians' Congress.
,, 28th–Sept. 11th (South-East of France).—Eleventh "Voyage d'Etudes Médicales."
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,, 30th–Sept. 6th (Portsmouth).—British Association.
,, 31st and Sept. 1st (Vancouver).—Thirteenth Annual Meeting of the British Columbia Medical Association.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 26th, 1911.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rain fall.	Solar Radio in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks.
July 20	30·21	S.W.	...	132	84	63	62	68	Cloudy
,, 21	30·22	S.	...	137	92	67	68	75	Fine
,, 22	30·20	S.W.	...	137	93	68	66	77	Fine
,, 23	30·19	E.	...	122	78	62	64	70	Cloudy
,, 24	30·15	E.	...	121	80	60	62	67	Fine
,, 25	29·92	S.W.	0·05	129	83	65	65	69	Cloudy
,, 26	29·84	S.W.	0·42	119	78	62	61	62	Raining

The following journals, magazines, &c., have been received:—Hospital Assistant, Canadian Practitioner, Philippine Journal of Science, Annales des Maladies des Organes Génito-urinaires, Revista Médica del Uruguay, Archives de L'Institut Pasteur de Tunis, Klinik für Psychische und Nervöse Krankheiten, Peru To-day, British Journal of Dermatology, Yale Medical Journal, L'Hygiène, Albany Medical Annals, American Medicine, Medical Times, Encyclopédie Médicale, Revue d'Hygiène, Interstate Medical Journal, Canadian Medical Association Journal, Annali di Medicina Navale e Coloniale.

Medical Diary for the ensuing Week.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

POST-GRADUATE COLLEGE, West London Hospital, Hammersmith-road, W.

MONDAY.—10 A.M., Dr. Simson: Diseases of Women. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. 2.30 P.M., Mr. Dunn: Diseases of the Eye.

TUESDAY.—10 A.M., Dr. Robinson: Gynæcological Operations. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Dr. Davis: Diseases of the Throat, Nose, and Ear. 2.30 P.M., Dr. Abraham: Diseases of the Skin.

WEDNESDAY.—10 A.M., Dr. Saunders: Diseases of Children. Dr. Davis: Operations of the Throat, Nose, and Ear. 2 P.M., Medical and Surgical Clinics. X Rays. Operations. Mr. B. Harman: Diseases of the Eye. 2.30 P.M., Dr. Simson: Diseases of Women.

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OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (31st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.), Central London Throat and Ear (Minor 9 A.M., Major 2 P.M.).

TUESDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London, (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M., Ophthalmic, 2 P.M.), Tottenham (2.30 P.M.) Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.), Royal National Orthopædic (9.30 A.M. and 4 P.M.).

WEDNESDAY (2nd).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

THURSDAY (3rd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal National Orthopædic (9 A.M. and 3.30 P.M.), Royal Ear (2 P.M.), Children Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

FRIDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Royal National Orthopædic (3.30 P.M.), Soho-square (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.)., Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

SATURDAY (5th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic (2 P.M.), Hospital operations are performed daily.

EDITORIAL NOTICES

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITOR," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention should be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this office.

Lectures, original articles, and reports should be written on one side of the paper only, AND WHEN ACCOMPANIED BY BLOCKS IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers—not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. I. of 1911, which was completed with the issue of June 24th, were given in THE LANCET of July 1st.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1911 are now ready. Bound in cloth, gilt lettered, price 16*s.*, carriage extra.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*, by post 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

TO SUBSCRIBERS.

WILL Subscribers please note that only those subscriptions which are sent direct to the Proprietors of THE LANCET at their Offices, 423, Strand, London, W.C., are dealt with by them? Subscriptions paid to London or to local newsagents (with none of whom have the Proprietors any connexion whatever) do not reach THE LANCET Offices, and consequently inquiries concerning missing copies, &c., should be sent to the Agent to whom the subscription is paid, and *not* to THE LANCET Offices.

Subscribers, by sending their subscriptions direct to THE LANCET Offices, will insure regularity in the despatch of their Journals and an earlier delivery than the majority of Agents are able to effect.

THE COLONIAL AND FOREIGN EDITION (printed on thin paper) is published in time to catch the weekly Friday mails to all parts of the world.

The rates of subscriptions, post free from THE LANCET Offices, have been reduced, and are now as follows:—

FOR THE UNITED KINGDOM.		TO THE COLONIES AND ABROAD.	
One Year	£1 1 0	One Year	£1 5 0
Six Months	0 12 6	Six Months	0 14 0
Three Months	0 6 6	Three Months	0 7 0

(The rate for the United Kingdom will apply also to Medical Subordinates in India whose rates of pay, including allowances, is less than Rs. 50 per month.)

Subscriptions (which may commence at any time) are payable in advance. Cheques and Post Office Orders (crossed "London County and Westminster Bank, Covent Garden Branch") should be made payable to the Manager, Mr. CHARLES GOOD, THE LANCET Offices, 423, Strand, London, W.C.

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SOLE AGENTS FOR AMERICA—Messrs. WILLIAM WOOD AND CO., 51, Fifth Avenue, New York, U.S.A.

pumps, but they now appreciate their convenience. The dairies and abattoir have been carefully inspected, and conservancy arrangements have worked well and been carried out efficiently. The highest monthly barometrical average was that of December, 30·626, and the lowest that of August, 29·354. The highest temperature recorded was 91° for June and July, and the lowest 2° in January and February. Rain and snow fell on 74 days, the annual rainfall being 36·18 in. July was the wettest month, with a rainfall of 10·63 in. In-patients treated during the year in the hospital on the island numbered 16, as compared with 23 in 1909, whilst the out-patients totalled 2277 as compared with 2635 in 1909. At the Port Edward Hospital there were 97 in-patients as compared with 112 in 1909 and 3063 out-patients as compared with 2826 in 1909. There were 123 operations.

During the past year the importation, sale, and smoking of opium were discouraged in every possible way. In 1909 the number of licensed smokers was reduced from 220 to 110, and during 1910 the number was still further reduced to 50. During 1909 the admissions to the refuge established by the Government for those desirous of abandoning the opium habit amounted to 31, whilst during last year they rose to 70, the ages of those admitted ranging from 24 to 74. The police were very active in discovering the illicit smoking and sale of opium, there having been during the year 135 convictions for breaches of the Opium Ordinance. This activity on the part of the police was naturally unpopular among those who have been accustomed to smoke opium, and led to the publication in certain Chinese newspapers printed in Manchuria, Chefoo, and Shanghai of serious libellous charges against the Government. No opium was imported under licence during the year and only one shop was licensed to sell opium. It may be impossible to prevent entirely the smuggling of opium into the Territory across the border or along the coast, but as every step possible is being taken to discourage the use of opium, and as public opinion among the Chinese of Wei-hai-Wei is, if anything, more than ever firmly set against the opium habit, there seems every reason to hope that opium smoking will become even a rarer habit than it is at present. But the diminution in the use of opium seems to be leading to an excessive use of alcohol, and though drunkenness cannot yet be said to be a prevalent vice cases of intoxication are undoubtedly more numerous than in previous years.

The total strength of the police force was three European inspectors, three Chinese sergeants, and 52 constables. The population of the Territory is estimated at 150,000, mostly Chinese, who inhabit 300 villages spread over an area of 285 square miles, so that there is about an average of one policeman to 3000 of the population. The Territory possesses no other local force, with the exception of a few marines, on which it could depend in the case of an emergency. The fact that such a small force is found sufficient for ordinary requirements shows how orderly and well-behaved the inhabitants of the Territory are. Attention has been called to the fact that in the Territory 90 per cent. of the persons who destroy themselves are females, and that as a rule no case of suicide among young people occurs, whilst such cases are said to be increasing in the West. The suicides last year, however, showed a larger proportion of males than usual, and among them was the suicide of a boy aged 15. He appears to have run away from home, but was brought back before he had gone very far. The loss of face caused by his failure to effect his object and the ridicule poured upon him by the village urchins, on account of his enforced return, drove him to hang himself. This case is an illustration of the slight causes which will induce Chinese to take their own lives.

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MONDAY (31st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M.), St. Mark's (2.30 P.M.), Central London Throat and Ear (Minor 9 A.M., Major 2 P.M.).

TUESDAY (1st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London, (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.), Chelsea (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 2 P.M., Ophthalmic, 2 P.M.), Tottenham (2.30 P.M.) Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.), Royal National Orthopædic (9.30 A.M. and 4 P.M.).

WEDNESDAY (2nd).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal Ear (2 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M., Dental, 2 P.M.), Tottenham (Ophthalmic, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

THURSDAY (3rd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Royal National Orthopædic (9 A.M. and 3.30 P.M.), Royal Ear (2 P.M.), Children Gt. Ormond-street (9 A.M. and 2 P.M.), Tottenham (Gynæcological, 2.30 P.M.), West London (2.30 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

FRIDAY (4th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Royal National Orthopædic (3.30 P.M.), Soho-square (2 P.M.), Children, Gt. Ormond-street (9 A.M., Aural, 2 P.M.), Tottenham (2.30 P.M.), St. Peter's (2 P.M.), Central London Throat and Ear (Minor, 9 A.M., Major, 2 P.M.).

SATURDAY (5th).—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 A.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.), Children, Gt. Ormond-street (9 A.M. and 9.30 A.M.), West London (2.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic (2 P.M.), Hospital operations are performed daily.

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THE INDEX TO THE LANCET.

THE Index and Title-page to Vol. I. of 1911, which was completed with the issue of June 24th, were given in THE LANCET of July 1st.

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